W &Co B

Further Copies of this Book may
be obtained from :
Allen Davies & Co. Ltd.,
Nelson Street, Bristol 1
at twenty shillings per copy, Post free

THE HISTORY OF

WM. BUTLER & CO. (BRISTOL) LTD.

★ 1843 to 1943 ★

by

T. HOWARD BUTLER

SILVERTHORNE LANE, BRISTOL

Published by
Wm. Butler & Co. (Bristol) Ltd.

Produced by
Allen, Davies & Co. Ltd., Bristol 1.

First Edition—April, 1954.

CONTENTS

PAGE

AUTHOR'S NOTE 1

WILLIAM BUTLER 2

INTRODUCTION BY A. G. POWELL 3

COLOUR CHART 5

CHAPTER I. THE FIRST PERIOD, 1843—1889. 6

- HISTORY OF TAR DISTILLATION 6
- CREOSOTE—DISCOVERY AND USE OF 7
- WILLIAM BUTLER AND CREWS HOLE WORKS 8
- DISCOVERY OF SYNTHETIC DYES 11
- RETIREMENT OF WILLIAM BUTLER 13

CHAPTER II. THE SECOND PERIOD, 1889—1921. 17

- DISASTER AT CREWS HOLE WORKS 17
- ERECTION OF NEW FORM OF TAR STILL 17
- REBUILDING OF NAPHTHA DISTILLERY 19
- EXPERIMENTS OF ROAD DRESSING WITH TAR 19
- BENZOLE AS A MOTOR FUEL 19
- BUTLER'S REGISTERED AS PRIVATE LIMITED COMPANY 21

CHAPTER III. THE THIRD PERIOD, 1921—1953. 28

- EFFECTS OF FIRST WORLD WAR 28
- PRODUCTION OF PYRIDINE FROM TAR 30
- NATIONALIZATION OF GAS INDUSTRY 34
- THOMAS HOWARD BUTLER, PH.D., J.P. 35
- ERIC WAKEFIELD BUTLER 38

CHAPTER IV. OTHER ACTIVITIES AND PREMISES. 40

- OIL DISTILLED FROM ROSIN 40
- COAL TAR DISINFECTANTS 41
- PETROLEUM REFINING AND DISTRIBUTION 43

CHAPTER V. TRANSPORT. 48

- TRANSPORT BY WATER 48

CHAPTER VI. PROPRIETORS, DIRECTORS AND SECRETARIES . . . 56

CHAPTER VII. STAFF AND EMPLOYEES 71

CHAPTER VIII. PIONEERING AND RESEARCH 80

- FIRST TELEPHONE 80
- FIRST MOTOR LICENCE 83

CHAPTER IX. FRANCIS F. FOX & CO. LTD. 88

ACKNOWLEDGMENTS 92

AUTHOR'S NOTE

IT had always been my intention that when the Company reached 100 years of its existence in 1943, I would write a history of its progress over this period. Unfortunately, when this time arrived we were in the throes of the second World War which made it impossible for me to devote the time necessary to carry out my ambition.

There seems no more appropriate time to do this than in 1953, firstly because I have recently retired from active business and therefore am able to devote the time to this pleasurable task and secondly, there could be no more appropriate time than the Coronation Year of our beloved Queen Elizabeth II.

The story I am endeavouring to unfold will be very much involved with my family, so that I must be forgiven if some of my manuscript contains personal references together with historical events.

T. HOWARD BUTLER.

Christmas, 1953.

WILLIAM BUTLER

INTRODUCTION

by

A. G. Powell

A CONTRIBUTION to Bristol history and especially to its many-sided industrial activities is always an important event and there will be many who will welcome the story Dr. T. Howard Butler has so well told, in the following pages, of the great business successive generations of his family have built up during the past hundred-odd years.

The founder, Mr. William Butler, who is well remembered by the present writer, came to Bristol when a great industrial revolution was going on all over the country. The possibilities of steam power were being exploited in many phases, particularly in the building of railways, but it was left to Bristol to prove that steam could also be applied to ocean navigation. This problem was solved by the building of the "*Great Western*," and her historic voyage from Bristol to New York in 1836.

It was in 1843, the year Mr. Butler came to Bristol, that Brunel's second masterpiece the "*Great Britain*" was launched, for he had already designed and operated the more famous "*Great Western*."

This second ship was the largest ship in the world; she was the first to be ironclad and she had a screw propellor. In fact, this great ship had so many new features that she became known before she went to sea as "Brunel's museum of curiosities." National interest in Bristol's enterprise was so great that Prince Albert, Consort of Queen Victoria, was among the "nobility and gentry" who came to see the ship launched, and it is more than likely that the enterprising young founder of the firm this book discusses, was somewhere in the vast crowd, watching the scene with absorbed interest.

Other stirring events occurred during Mr. Butler's early years in Bristol, among them the transfer of the great dock undertaking from a private company to the Bristol Corporation, thus making Bristol a free port; the building of the South

Wales railway, which involved the crossing of the Severn in a paddle-wheel steamer and the building in later years of the Severn Tunnel; the opening of the Clifton Suspension Bridge; the acquisition of the Clifton and Durdham Downs by the Corporation, and the inauguration of street tramways system in Bristol.

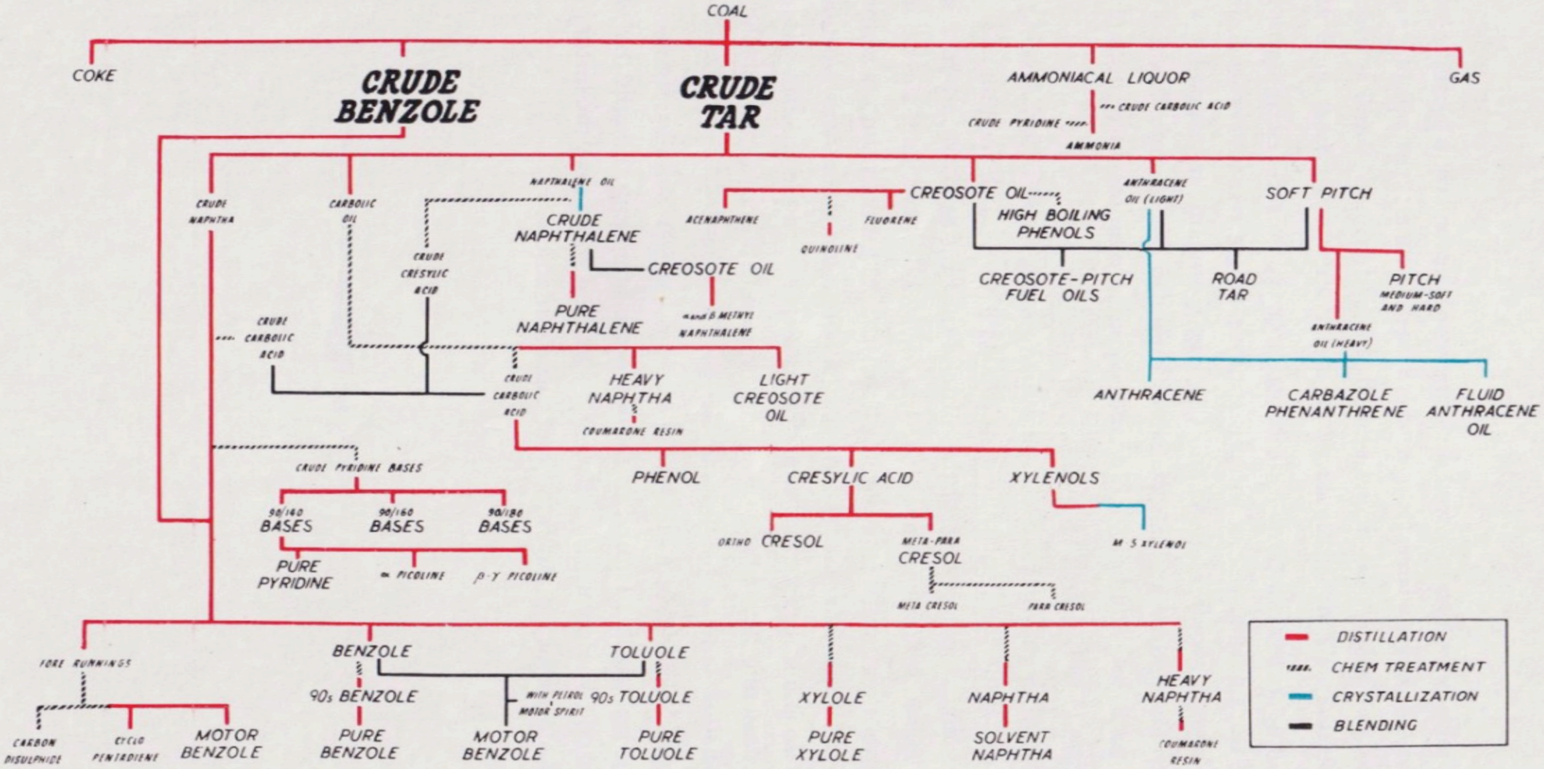
In this last very important contribution to the problem of transport Mr. William Butler was certainly one of the prime movers. He was instrumental in the formation of the Bristol Tramways and Carriage Company, in which he was Chairman of Directors and became associated with the late Sir George White—who in later years, with his brother Mr. Samuel White, founded what became the Bristol Aeroplane Company.

Whilst these historic events and many other changes were taking place in the city, Mr. Butler and his sons were building up and developing their business in various directions, yet each of them found time to take part in public service. The writer remembers Mr. William Butler, the founder, as a staunch and active worker in religious and social life and as one of the magistrates who administered justice at the Lawfords Gate Court House. In public service he was worthily succeeded by his sons and grandsons, who followed his example in their pioneering spirit and in fostering new processes and inventions that helped to keep the firm abreast —or in some instances a little ahead—of the times !

It has been a pleasure and privilege to the writer, who has known four generations of this notable family, to set down the foregoing thoughts by way of introduction to Dr. Howard Butler's story—which is more than the history of one firm; it is also a history of an important British industry.

* * *

PRODUCTS OF COAL TAR DISTILLATION AND BENZOLE REFINING.



CHAPTER I

THE FIRST PERIOD, 1843—1889

THE first three chapters of this story are the history of Coal Tar Distillation over the last century, starting from its inception when tar had no value and its disposal was a liability rather than an asset.

When coal is carbonised in retorts, the products obtained are gas, coke, ammoniacal liquor and tar. The Gas Industry carbonises coal for the production of gas, in which case the other three articles are the by-products. The Coke Oven Industry, which is closely associated with the Steel Industry, carbonises coal for the production of metallurgical coke for the manufacture of steel and in this case, the other three articles are the by-products. The carbonisation process in each case is substantially the same and the coal tar is the by-product which the producers sell to the distilling companies. Thus is obtained the raw material for the Tar Distiller from which so many valuable products can now be isolated.

This story is the handling and processing of coal tar produced by the Gas Industry only, as the area of operation in the West of England produces only this type of tar, there being no coke ovens in the district.

It must be understood that the quality of coal tar varies very considerably, dependent upon the kind of coal used and the method of carbonisation at the Gas or Coke Oven Works.

William Butler, born in 1819 at Woodhouse Eaves, Leicestershire, must have started work early, as was customary in those days and was first employed on the Midland Counties Railway and then with the Bristol & Exeter Railway under the famous Railway Engineer, I. K. Brunel. He came to Bristol in 1843 as Manager of the new Tar Distilling Works owned by Roberts & Daines at Crews Hole, owners also of the Iron Works situated at Silverthorne Lane, then called Barton Road, St. Philips, Bristol.

The first record we have of coal tar, a by-product from the manufacture of coal gas, having been treated in any way, is in the early twenties, at Edinburgh. It has not been established how this tar was treated, but in some manner (probably a crude form of distillation) light products were obtained, from which Mackintosh waterproofed material by using the spirit for dissolving rubber. His name is associated with raincoats, etc., to this day.

The next important development was the setting up in the late 1830's of a Tar Distillery in West Bromwich by John Bethell, who took out Patent No. BP. 7731. The object of this patent was the utilization of Creosote Oil for the preservation of timber and so extended its useful life. He employed many mixtures such as—Coal Tar thinned with a third to a half its own quantity of " dead oil " or Creosote Oil as it is known today. This process established the value of Creosote Oil as a wood preservative and, although over the years many other preservatives have been discovered, even today Creosote is still the most valuable and most used preservative of timber. The only real development over the Century has been the method of application rather than any alteration of the Creosote itself.

The distillation of Coal Tar was started at this time with the primary object of obtaining the Creosote Oil for timber preservation. From this simple small beginning has developed the fascinating discoveries of very many products contained in the Tar. It was soon to be found that these varied chemicals were the basic raw materials for the Organic Chemical Industry and it is doubtful whether without them the " Chemical Age " as it has so often been called, would have been possible.

At this time I. K. Brunel was building the London to Bristol line of the Great Western Railway and realised the importance of preserving the sleepers on which the rails are laid and the large amount of timber used for piling. He took out a licence with John Bethell for the use of his Patent. He also took technical advice from Bethell in the erection of the Tar Distillery situated at Crews Hole, St. George, Bristol, the work being financed by Roberts & Daines and managed by William Butler.

The tar for the manufacture of this Creosote was, in the first instance, obtained from Bristol Gas Works which became later the Bristol Gas Company and which, finally, in 1947, under the nationalization of the Gas Industry, was absorbed by the South Western Gas Board.

EMPLOYEES AT ST. PHILIPS ABOUT 1890

William Butler soon realised the economic value of distilling tar and whilst still managing the Crews Hole Works, started a new Works at Upper Parting, Gloucester, situated on the River Severn. This was in the year 1860 when he entered into partnership with Charles Bird for twelve years, trading under the name of William Butler & Company. They purchased tar first from the Gloucester Gas Light Company, but soon went farther afield buying tar from North Gloucestershire, South Worcestershire and the Forest of Dean.

The partnership became a very close one by Robert, the eldest son of Charles Bird, marrying Emma, the second daughter of William Butler. On dissolution of the partnership, Charles Bird, together with his son, founded the Company known as Bird & Son in Cardiff to distil the tar produced by the Gas Companies of South Wales. The close and happy family and business ties continued between these two concerns right up to the year 1947, when Bird & Sons closed down.

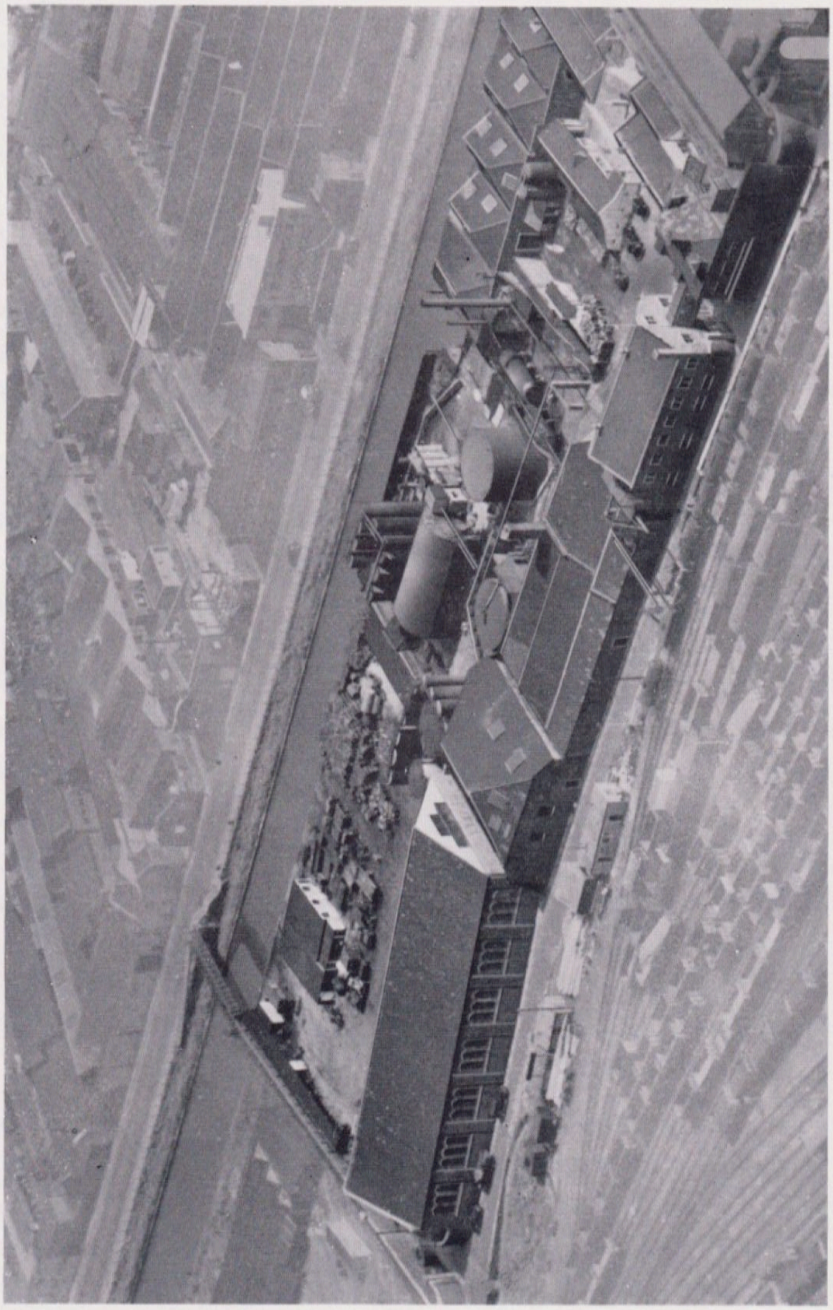
Early in 1863 a fire broke out at the Crews Hole Works which very nearly demolished the whole of the plant. Roberts & Daines, no doubt fearful of this fire risk, sold their interest to William Butler who then proceeded to rebuild the Works and to operate it jointly with the Works at Gloucester under the style of William Butler & Company. Records of these times are a little scanty, but it is clear that many years before this time William Butler had a financial interest in the trading of the tar business at Crews Hole.

Much research was going on throughout the country; for by this time other distilleries had started and the possibilities of isolation of so many of the complex bodies contained in Coal Tar opened out a golden opportunity for industrial development. One of the first products manufactured was lamp black. This was a very simple process of burning any unsuitable by-products, for which no market could be found, and condensing black smoke in chambers where carbon deposited on the walls. In those days youths were sent into the cooled chambers to scrape out the lamp black, and the records show many of these boys, starting in this humble way, continued in the employment of the Company for the rest of their lives.

As the gas lighting industry progressed, so also did the production of Coal Tar increase and in the 1870's tar was being collected from Gas Works in an area stretching from the Welsh Border in the West to Worcestershire in the North, Berkshire in the East and Somerset in the South, and, over the hundred odd years of existence, the Company has taken and processed the tar from an area approximating to this.

In 1871 Roberts & Daines leased to William Butler some portion of their premises at St. Philips which eventually became the rail-head at Bristol, a storage depot and Head Offices of the Company.

Sixty to seventy per centum from the distillation of Coal Tar as produced in the early days was the residue—Pitch. The quantity of this has been considerably reduced over the years by more economic and scientific methods of the carbonisation of coal and distillation of the tar. Great difficulty was experienced in the early



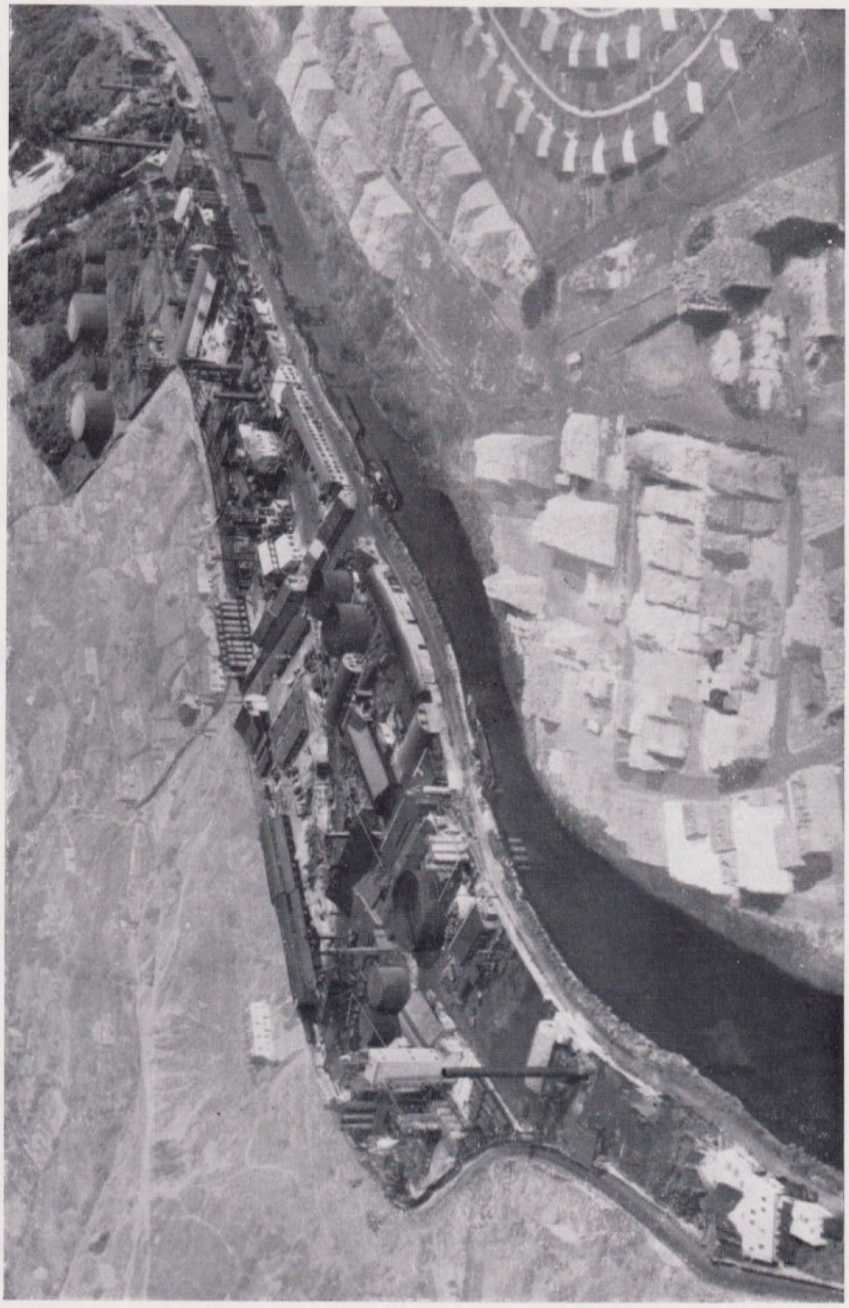
HEAD OFFICE AND STORES, ST. PHILIPS, BRISTOL days in the disposal of this large amount of material until it was discovered that it could be utilized in mixing with small coal to the extent of about 10%, and compressing the mixture when warm into the well-known Briquettes, a fuel that was exported to countries all over the world.

The Crown Preserved Coal Company of Cardiff were the chief users of the Company's pitch until 1878 when they got into low water and William Butler purchased the Company rather than let it go into liquidation. He put his second son, Samuel Butler, in charge of these Works and he, Samuel Butler, eventually acquired them. The story of the big development of this Company will no doubt be written at some future time, but there was always a very close connection between it and William Butler & Company.

Benzole, the lightest product distilled from Coal Tar was discovered in the first half of the nineteenth century. It is the mother substance of all Aromatic Organic Compounds and its importance was brought about by the accidental discovery by William H. Perkin of "mauve" dye in 1856. This discovery necessitated the erection of special stills to rectify the Benzole required for the manufacture of Aniline. Great care had to be taken in operating these stills as the fire hazard was very real owing to the high inflammability of Benzole. Thus was founded the synthetic Aniline dye industry which has played such a big part in the chemical industry for nearly 100 years.

The next important development was the discovery of the synthetic Alizarin dyes in 1869. This range of dyes replaced the colouring matter of Madder-root which was grown in many European countries but particularly in France. Alizarin is prepared from Anthracene, a hydro-carbon that crystallizes out in a very crude form from heavy Creosote Oil. Anthracene became one of the most valuable chemicals produced from Coal Tar for the next quarter of a century.

Naphthalene is a hydrocarbon that is found in the light Creosote fraction distilled from Tar. It readily crystallizes in the oil, forming a thick mixture. It became necessary to take the Naphthalene out so that the Creosote could be made suitable for wood preservation. Many endeavours were made to utilize this very objectionable by-product and some use was found for it in the discovery of the Albo



CREWS HOLE WORKS

Carbon Lamp. It must be borne in mind that in the early days utilization of gas for illumination was only done in the open fish-tail burner. It was found that on passing the gas, before burning, through the Albo Carbon Lamp, a certain amount of Naphthalene was absorbed which increased the illumination of the flame.

With the vast development in the synthetic dye industry the method was discovered, again by accident, in the 1890's for the manufacture of synthetic Indigo. This discovery was the ruination of the natural Indigo growers of India.

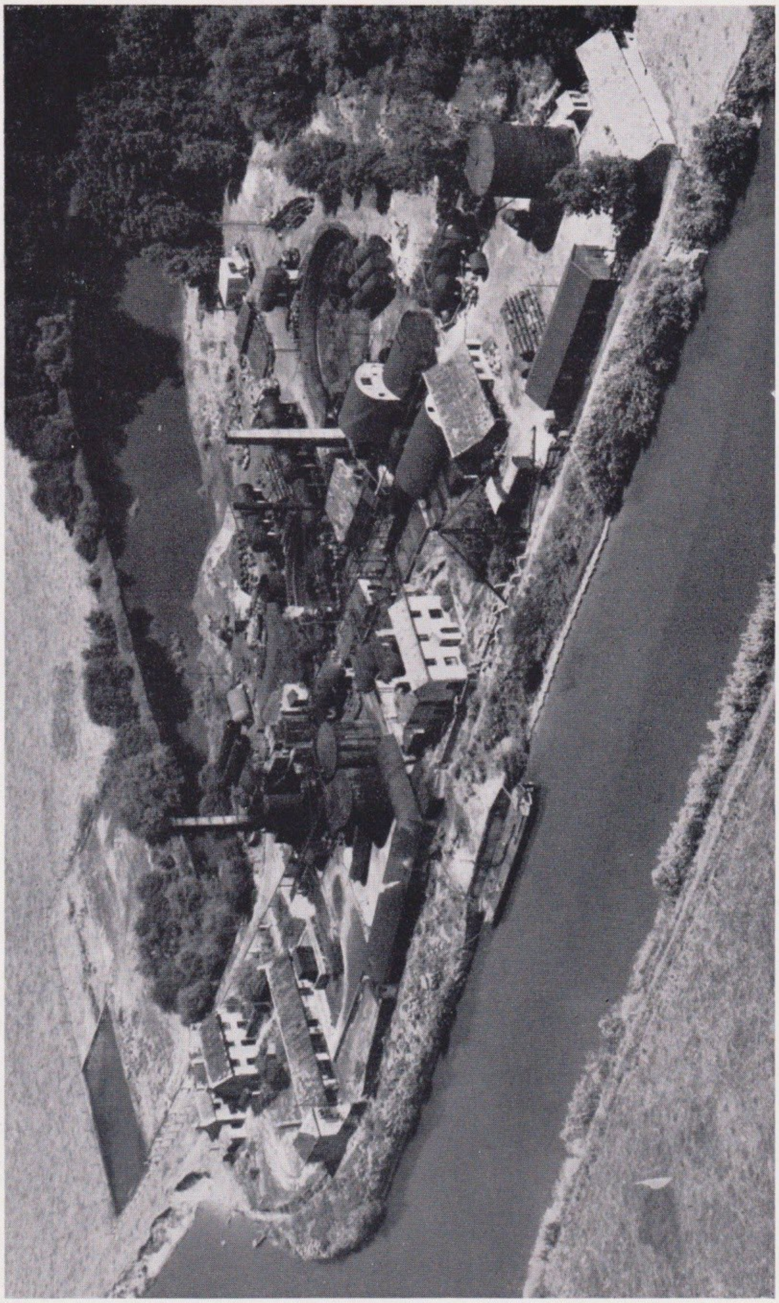
It was early in the 1890's that natural imported fertilizers, such as Peruvian Guana upon which farmers had been depending, began to decline, with the result that Sulphate of Ammonia became an important by-product of the Gas Industry and the Tar Distiller. Sulphate of Ammonia was manufactured from gas liquor which is the watery constituent of the mixture of tar and liquor condensed at the Gas Works and in the Tar Distillery.

It is interesting to note that with the rapid development of Tar Distillation throughout the country, the proprietors of these various businesses decided to form an Association. The Association of Tar Distillers was formed in 1887, the subscription to which was one guinea per annum.

In August 1889, the Founder retired from business and left the active management in the able hands of his three sons, William, Joseph and Thomas who had been associated with him in his enterprise for very many years.

Thus ended the business career of a Great Christian Gentleman. Despite his activities in building an important business, he had always devoted a considerable part of his time and energies for the benefit of other people. He was very closely associated with the Methodist Church, being a teacher, a sick visitor and, later, a Preacher.

Local Government attracted his attention quite early and with his natural ability, he was soon in the forefront of the attempt to establish representative Government in St. George. As a result, he became Chairman of the Local Government Board and was elected to this office annually for fourteen years.



GLOUCESTER WORKS

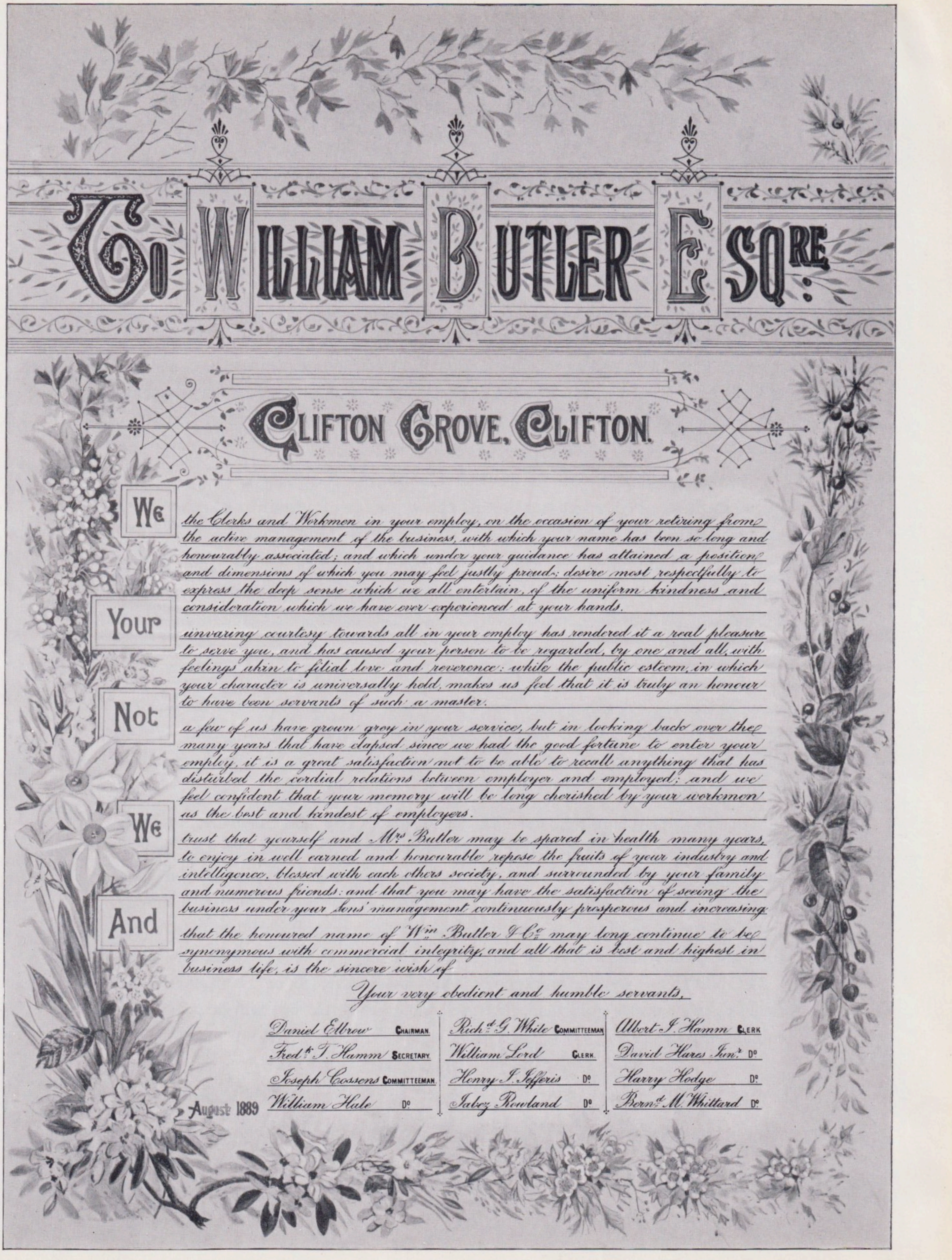
He also became Chairman of the Highway Board, was elected a Guardian, became a Member of the County Council and a County Magistrate. From 1887 to 1890 he sat on Bristol City Council for St. Philips, South.

William Butler was always associated with transport and took a financial interest in the tramways systems at Bristol and Gloucester. He was the first Chairman of The Bristol Tramways Company and indeed, held that position until his death on October 6th, 1900. It is recorded that, in so much respect was he held by his employees and the citizens of Bristol generally, at the time his coffin was lowered into the grave at Avon View Cemetery, all the trams in Bristol remained stationary for one minute. The family vault had been built by William Butler on a site in the Cemetery overlooking the Works at Crews Hole which he had spent his life in developing.

His family, as was customary in those days, was a large one and consisted of five daughters and four sons and there is reference to these four sons in this history.

William Butler was a man greatly respected by all who came in contact with him, having a character which was very much admired. The respect, love and devotion between " Master " and " Man " is beautifully expressed in the Illuminated Address presented to him on his retirement from business. This Address is illustrated on the opposite page.

* * *



TO WILLIAM BUTLER ESQ^{RE}.

CLIFTON GROVE, CLIFTON.

We the Clerks and Workmen in your employ, on the occasion of your retiring from the active management of the business, with which your name has been so long and honourably associated; and which under your guidance has attained a position and dimensions of which you may feel justly proud; desire most respectfully to express the deep sense which we all entertain, of the uniform kindness and consideration which we have ever experienced at your hands.

Your unvaring courtesy towards all in your employ has rendered it a real pleasure to serve you, and has caused your person to be regarded, by one and all, with feelings akin to filial love and reverence; while the public esteem, in which your character is universally held, makes us feel that it is truly an honour to have been servants of such a master.

Not a few of us have grown grey in your service, but in looking back over the many years that have elapsed since we had the good fortune to enter your employ, it is a great satisfaction not to be able to recall anything that has disturbed the cordial relations between employer and employed; and we feel confident that your memory will be long cherished by your workmen as the best and kindest of employers.

We trust that yourself and M^{rs}. Butler may be spared in health many years, to enjoy in well earned and honourable repose the fruits of your industry and intelligence, blessed with each others society, and surrounded by your family and numerous friends: and that you may have the satisfaction of seeing the business under your Sons' management continuously prosperous and increasing

And that the honoured name of W^{m}. Butler & C^{o}. may long continue to be synonymous with commercial integrity, and all that is best and highest in business life, is the sincere wish of

Your very obedient and humble servants,

Daniel Ellbrow	CHAIRMAN.	Rich^{d}. G. White	COMMITTEEMAN	Albert I. Hamm	CLERK
Fred^{k}. T. Hamm	SECRETARY.	William Lord	CLERK.	David Hares Jun^{r}.	D^{o}.
Joseph Cossens	COMMITTEEMAN.	Henry I. Jefferis	D^{o}.	Harry Hodge	D^{o}.
William Hale	D^{o}.	Jabez Rowland	D^{o}.	Bern^{d}. M. Whittard	D^{o}.

August 1889

ILLUMINATED ADDRESS PRESENTED TO WILLIAM BUTLER ON HIS RETIREMENT IN 1889

CHAPTER II

THE SECOND PERIOD, 1889—1921

THIS period was one of still more rapid development, brought about, largely, by the increased production of Coal Tar in the area of operation of the Company, together with the discovery by the scientists of the further use of products contained in Coal Tar. For instance, a Benzole distillation plant was purchased from Germany and installed at Crews Hole in 1890 and the high price of Benzole at that time must have made the investment a profitable one.

In the period at the end of the 19th Century, great developments took place in the methods of transport and the Company purchased a number of river-craft, to which particular reference will be made in a subsequent chapter.

On the 15th November, 1894, there was a disaster at Crews Hole Works brought about by a very serious flooding of the Works from the River Avon. Fortunately no lives were lost but very considerable damage was done to the plant and machinery.

A serious fire broke out at Crews Hole Works in July, 1897, which was the cause of the tragic death of one of the employees. This fire was one of the greatest spectacles the citizens had seen in many years, as the burning oil from the Works spread all over the river and there was no means of getting it out, so that it had to burn until all the oil had been destroyed.

In 1899 was completed the erection of an entirely new form of Tar Still. This was under agreement with Forbes, Abbott & Lennard of East Greenwich, the Patentees. This still was a " tube " or " pipe " still and was worked continuously, distilling some 120 tons per 24 hours. It was a revolutionary method, replacing the more expensive method of using batch pot stills in which the cooling time and heat losses were very excessive. The new plant was promptly called " KLONDYKE " by the workpeople who imagined it to be as productive of riches as that famous gold field. Further reference to this still will be made in a subsequent chapter.

WILLIAM HENRY BUTLER

As a result of the serious fire it was decided to rebuild the Naphtha Distillery. Naphtha being one of the most inflammable products from the distillation of tar, an entirely new Works was completed in 1902 isolated from the main Works except for a small pipeline through which the Oils could be pumped to the new distillery.

In the latter years of the last century and the early years of the 20th century, big developments took place in the Transport Industry in the use of the internal combustion engine for motor transport. In those days all roads were water-bound, with the result that in dry weather, dust was a great nuisance and skidding in wet weather was a dangerous hazard to anybody using the roads in a mechanical vehicle having rubber tyres of any kind.

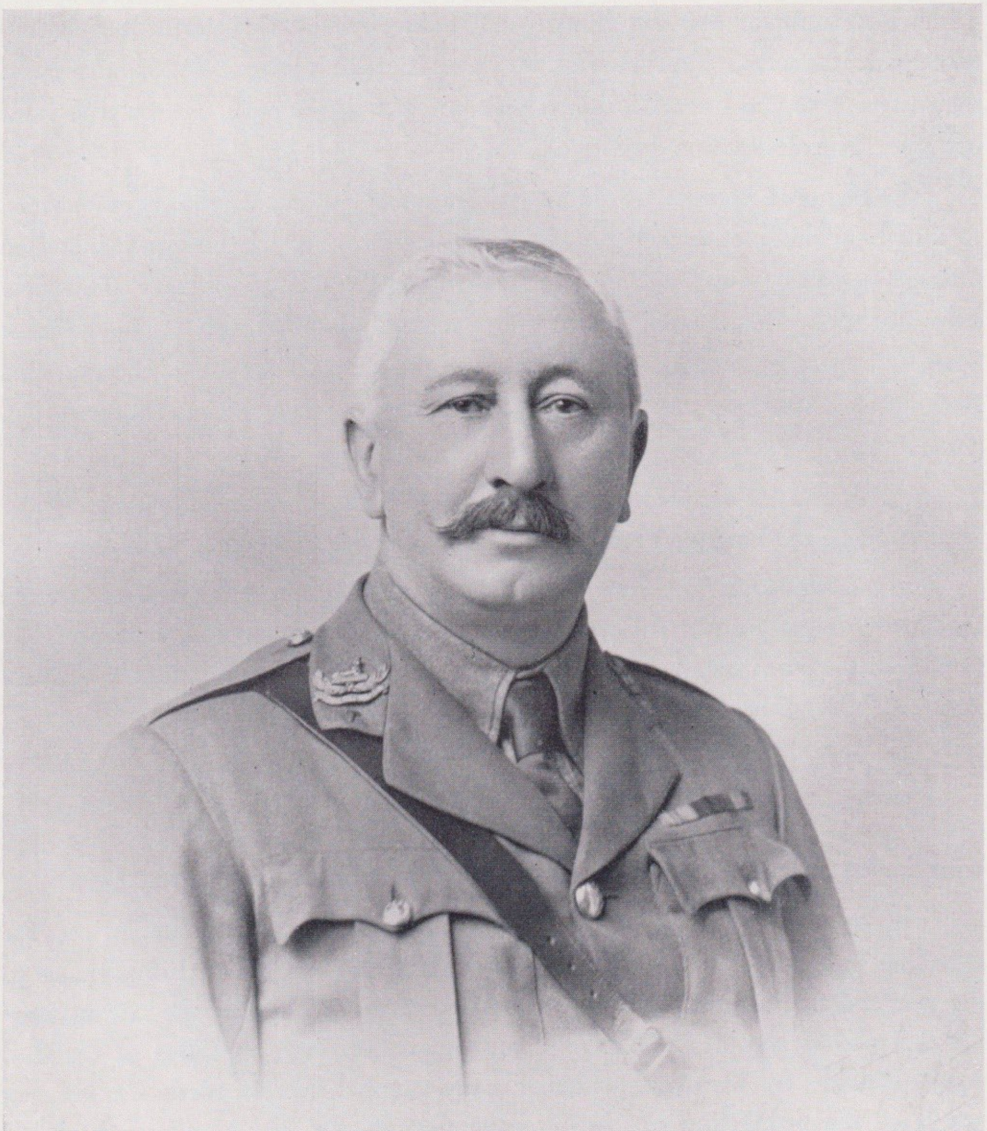
Many experiments took place to waterproof the roads by dressing with tar and so started the development of road building and engineering that is called today Tarmacadamed roads. This development entirely altered the outlook and production of Tar Distillation, as many of the basic products, *i.e.*, Pitch and Creosote are now used in the manufacture of Road Tar for the treatment of roads throughout the country. Many other products such as Bitumen, from the distillation of Petroleum, have been used for the same purpose but, despite this, specially refined road tar in large quantities is still one of the major outputs of Tar Distilleries.

Starting in the early days with a very crude product, Road Tar has been developed over the last fifty years into a highly scientific and specialized article to meet all the demands required for economic sound road construction.

In 1903, a Company known as The British Refined Motor Spirit Company, was formed, with the object of distributing Benzole as a motor fuel, in two gallon cans, to the fast developing motor industry.

The spirit was sold at 10d. per gallon in Bristol, in loaned cans and an advertisement in the local press reads as follows:—

> " No more trouble with Bad Spirit in Surface Carburettors—a Quadrant Bicycle ridden daily in Bristol, wet or fine, has been run 177 miles on one gallon of our Highly Rectified Spirit. Makers: British Refined Motor Spirit Company, Silverthorne Lane, St. Philips, Bristol."



JOSEPH BEAUMONT BUTLER

It is unfortunate that this effort to popularise Benzole as a motor fuel did not meet with immediate success. This was because carburettors at that time were of the surface type and not until the jet carburettor was invented, did the true value of motor benzole become established.

The National Benzole Co. Ltd. was formed in 1919 by producers of Benzole, to distribute this motor fuel throughout the country, which fuel gave increased mileage, greater power and its well-known anti-knock properties. This new company took over the equipment and goodwill of the British Refined Motor Spirit Co. established some 16 years before. The Bristol Depot of the National Benzole Coy. was operated and managed for many years by Wm. Butler & Co. (Bristol) Ltd.

In 1904 further extensions to Crews Hole Works were made possible by the acquisition of the neighbouring Works of the Conham Chemical Company.

On the 9th November, 1905, the Company was registered as a Private Limited Liability Company under the style of Wm. Butler & Co. (Bristol) Limited. The Capital of the Company was £200,000 to take over, as a going concern, William Butler & Co. The first Directors were—

W. H. Butler,
J. B. Butler,
T. Butler,

with the first named to be Chairman as long as he remained a Director.

The result of the first World War brought an entire revolution to the Tar Distilling Industry. Many products derived from tar were of vital importance to the war effort. Particular reference should be made to Toluene, the raw material for the manufacture of T.N.T., the most important high explosive of the day. Again Benzole, for the manufacture of many essential fine chemicals and last, but not least, the production of Phenol, basic material for making Picric Acid and Lyddite.

So important were these and other products that only a few employees were allowed to join the Services, or if they did voluntarily, they were quickly returned to the Works to carry out their civil employment. During this period of the war,

THOMAS BUTLER

a great deal of new plant was installed to cope with the increased demand of these many chemicals.

During these last decades, Gloucester Works was also rapidly developing and was largely operated as a primary Works with all refining done at Crews Hole, the transport of the " Intermediates " being carried out by water between the two Works, traversing the Rivers Avon, Severn, and Gloucester and Sharpness Canal.

In the year 1921, Thomas Butler, who had been Managing Director of the Company for some years, retired from active business and handed over the management to his two sons, T. Howard Butler and Eric W. Butler.

Thus ended another era of progress and development of the business so ably carried out with courage and foresight by the three sons of the Founder.

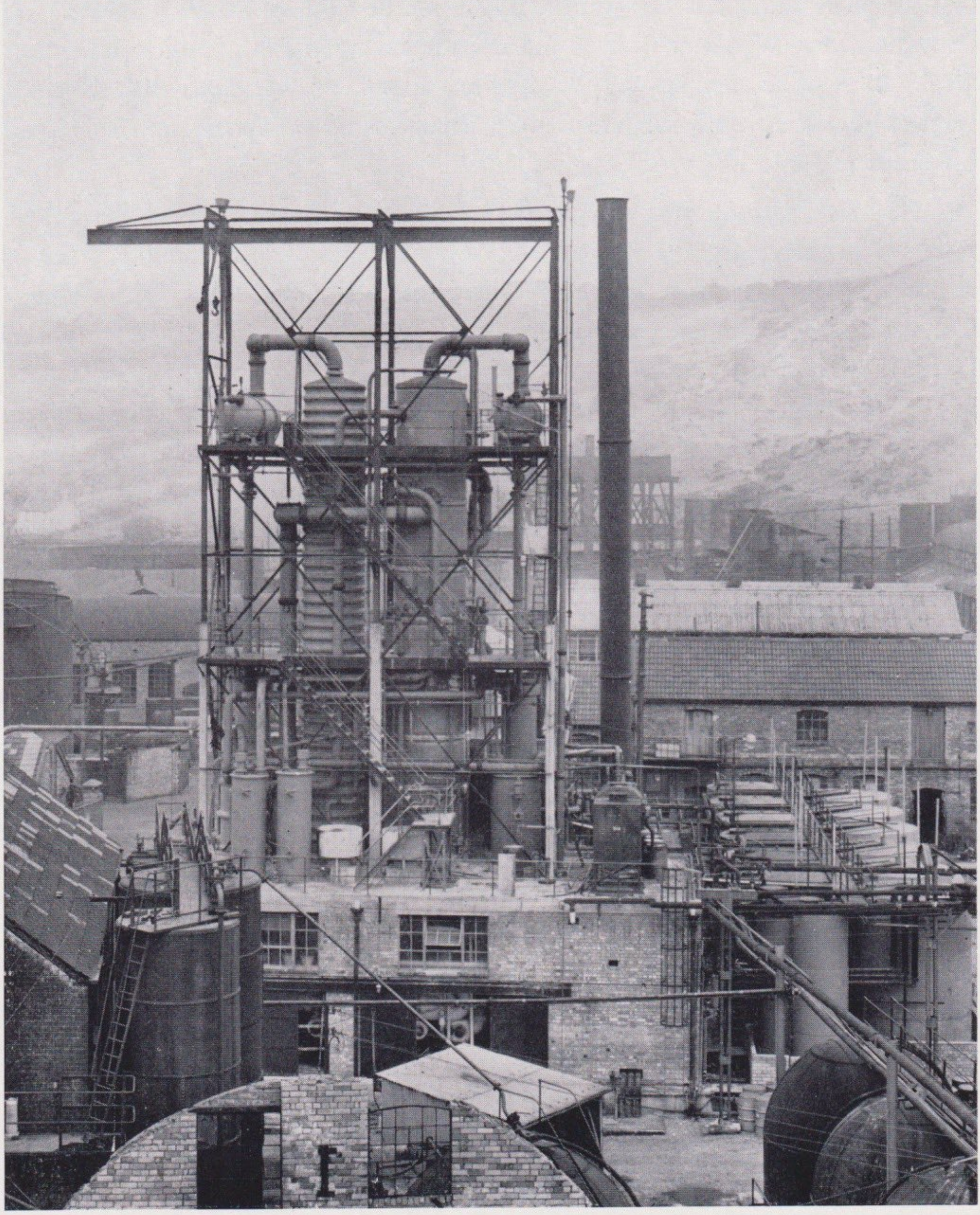
WILLIAM HENRY BUTLER, J.P.

William Henry Butler, the eldest surviving son of William Butler, commenced work at Crews Hole in 1868 in his 18th year. He married in 1870, had two sons, William and Joseph Henry, and one daughter, Isabelle. Later in life he married a second time and a son was born of this marriage, George B. Butler.

William Henry Butler was Chairman of the Company from its incorporation in 1905 until his death. He lived nearly all his life in the St. George area and in his spare time took a great interest in local matters. He was a member of the St. George local Board, a member of the Gloucester County Council and a County Magistrate. He was President of the Anchor Society and was the Chairman of the Trustees who administered the estate of Handel Cossham, M.P., whose beneficence enabled these Trustees to build Cossham Memorial Hospital.

In his later years, he travelled extensively and was particularly interested in Australia.

He, like his two brothers, took a great interest in the Methodist Church, holding many denominational positions. He was Superintendent for many years of the large Sunday School attached to Zion Chapel, Kingswood. He died June 20th, 1931.



CONTINUOUS TAR DISTILLING UNIT

LIEUT.-COLONEL J. B. BUTLER, T.D., D.L., J.P.

Joseph Beaumont Butler was the fourth son of William and Ann Butler. He was educated at Westbury College and at Bath and entered this business in the year 1873. Most of his energies were devoted to the practical side rather than the commercial side of the business. He was Chairman of the Company from 1931 until his death in 1935.

He was always greatly interested in Military affairs and joined the Bristol Rifles at an early age; the Rifles subsequently became the 4th Battalion (City of Bristol) the Gloucestershire Regiment. He eventually attained the rank of Lieut.-Colonel and commanded this Battalion for many years. He, with his nephew, Lieut. J. H. Butler (later Captain), the younger son of William H. Butler, fought in the South African War. At the outbreak of the First World War in 1914, he trained his Battalion for service in France. In November 1916, he was elected Sheriff of the City & County of Bristol and served in this capacity until taking the duties of Area Commandant in France in May 1917, which position he held until the end of the war. He was a first class rifle shot, winning the 1896 Gold Medal for Gloucester County, also the Grand Aggregate Medal—Bisley, 1895 and 1896. In recognition of his war service he was appointed a Deputy Lieutenant for the County of Gloucestershire. He was the holder of the Territorial Decoration awarded for long service.

He was elected to the Bristol City Council and became a Justice of the Peace for the City & County of Bristol in 1916. Among his many interests, Masonic duties held a prominent part. After serving as Master of the Moira Lodge, he attained the position of Grand Sword Bearer of England in 1920. He was very closely associated with Cossham Memorial Hospital, Kingswood, from its inception and was Chairman (following the decease of his brother W. H. Butler) up to the time of his death in April 1935, at the age of 78.

THOMAS BUTLER, J.P.

Thomas Butler, the fifth son of William Butler, was born in Kingsholm, Gloucester, on 5th July 1861. He joined the Company at an early age and whilst he devoted most of his time to the commercial side of the business, he was at the same time, a practical engineer and had a working knowledge of chemistry. His engineering knowledge came to his aid and resulted in the installation of motors in the Company's fleet of barges and so finally ousting the old steam tug. Thomas Butler was a keen politician, working for many years in the Liberal cause and was the Liberal and later the Citizen member of the Council for various Wards for many years and served most of his time on the Docks Committee. To show his everlasting pleasure, he presented the Council with a painting by A. Wilde Parsons of the "*Launching of the Great Western*" which still hangs in the Council Chamber. He was made a Justice of the Peace in 1905 and President of the Anchor Society in 1909.

Outside his business and political activities, his chief hobbies were Photography, Pyrotechnics, Motoring and Yachting. He started in the very early days of Photography when dry plates and films were unknown and the photographer had to sensitise his own plates with wet emulsion, and expose and develop them immediately. Again, his chemical knowledge made him a keen pyrotechnist, always having an elaborate display of home-made fireworks on the 5th November. Thomas Butler was a very early keen motorist. He was always fond of the sea and ships and for many years owned his own yacht.

He took an active part in his Church and all its activities. He was particularly interested in Foreign Missionary work and he and Mrs. Butler in 1921 made a tour of the foreign missionary stations of the Methodist Missionary Society lasting eighteen months, in China and East Africa. He died at the age of 69 years in 1931.

* * *

THOMAS HOWARD BUTLER

CHAPTER III

THE THIRD PERIOD, 1921—1953

THE effect of the First World War was felt by all businesses throughout the country. The shortages that had been created resulted in very high prices and a general boom in trade carrying on to 1921. During this year, which is the start of the chapter, a general setback in trade took place, brought about by the lowering of prices, a slackening of demand and a consequent increase in unemployment.

There was in the early 1920's a big movement in the United States in the development of Tar Distillation. The Company associated themselves with Robinson Bros., of West Bromwich, to exploit their knowledge and experience in Tar Distillation and to take advantage of the developments in that country. They jointly erected Works in conjunction with the Inland Steel Company of Chicago in 1924, which was capable of distilling some 72,000 tons of tar per annum, produced from the coke ovens of the Steel Company.

In 1926 these two British Companies, Robinsons and Butlers, further extended their interests in U.S.A. by accepting a contract for designing, erecting and operating a Tar Distilling Works at Clairton, Pennsylvania, for the Carnegie Steel Company, a branch of the United States Steel Corporation. Eric Butler, together with J. C. Mann, Chief Chemical Engineer of Robinson Bros., went to U.S.A. and with the assistance of Frank Hemmingway, their partner in America, set up a complete organisation in New York and Pittsburgh to carry out the contract.

The Works was operating within two years and had a distilling capacity of 290,000 tons per annum, and was at that time the largest individual Tar Works in the world. The plant produced Creosote, Naphthalene, pure Phenol and Cresylic Acid, the residue being mixed back with crude tar to form a valuable liquid fuel for burning in the open hearth furnaces of the Steel Company.

Some idea of the size of this plant can be gained by the aerial photograph appearing on page 36. It will be seen that in the tank farm there are seven large tanks, each of which had a capacity of 1,000,000 gallons.

A further development in the industry took place in April, 1921, when it was realised that it was most unsatisfactory to both the crude tar producers and distillers for tar to be bought on contract at a fixed price, owing to the prices of the products fluctuating so violently, which affected the value of the raw material.

To avoid this inequality to both buyer and seller, it was mutually agreed that the most satisfactory way of handling the difficulty was to enter into what became known as a " Co-operative Contract " in which the distillers paid for the tar at a price realised for it after all expenses had been paid, less a percentage to the distiller for processing the tar and selling the products. This method of operation became more and more general throughout the country during the following years and, with minor exceptions, it has become a universal practice throughout the Trade.

The development of the use of tar for road construction became so important at this time, that the Company decided to purchase a road stone quarry in order to be able to control scientifically the coating of stone with refined tar. They acquired, in 1923, a quarry in the Mendips and formed the Mendip Mountain Quarries Ltd. So successful was this venture that within a very few years, this Company amalgamated with the Teign Valley Granite Co. Ltd., under the style of Roads Reconstruction Ltd.

Further amalgamations of quarries in the West of England took place in 1934 when another Company—Roads Reconstruction (1934) Limited was formed. During this period Wm. Butler & Co. (Bristol) Ltd. had a substantial financial interest in this quarrying business and took a very active part in the management of the concern and T. Howard Butler remained on that Board until 1948.

The manufacturing business of the Company during the late 1920's was developing so rapidly that they acquired further adjoining land at both Crews Hole and St. Philips.

During the post-war years, rapid developments took place with the isolation of further products, the important uses for which had been discovered during wartime. Naphthalene had become an important raw material with the fine chemical trade and it became necessary to prepare this in a pure form rather than sell it in the crude state which had been customary before the war.

Pyridine, a product obtained in small quantities from tar became a very vital chemical for the drug trade. It is the base of the Sulpha drugs, the first of which was discovered by May & Baker and is well-known as M. & B. 693. These drugs revolutionized the treatment of chest ailments, such as Pneumonia.

It was during this period that the Plastic Industry started to develop and the earliest form of Plastic was " Bakelite " which is a resin formed by the condensation of Phenol and Formaldehyde. Phenol and its Homologues, generally known as Tar Acids, are found in tar and the Company early started the production of these various acids in a pure form. The first plant put down for this purpose was in 1938 as, prior to this date, the Company had only produced these acids in a crude state. The advancement of the Plastic Industry over the last 25 years is well known, with the manufacture of so many plastic substitutes for wood, metals and fabrics. The time will soon come when steel will be replaced by plastics for the making of motor car bodies, as very successful experiments have already been carried out on these lines.

In 1935 the Company was converted into a Public Company. The capital was increased to £375,000 and some of the 5½% Cumulative Preference Shares were disposed of to the public, for up to this time the ownership of the Company was entirely in the hands of the family.

Owing to the rapid development of housing in the neighbourhood of the Crews Hole Works, the Kingswood and Warmley Councils compulsorily purchased a very important and large piece of land belonging to the Company at Conham, for the purpose of installing a sewage scheme. This land, on the banks of the River Avon, had been developed for very many years by the Company in using it as a tip and, by so doing, they had raised the land well above flood level. The action of these Councils restricted the rapidly developing Works and necessitated a considerable amount of re-arrangement of the operations.

The period during the two wars was one of increasing input of tar, with the consolidation of the happy arrangement with the many producers for the sale and purchase of tar on a co-operative basis.

A new generation had started in the business to take care of the developments that were taking place. E. Peter Butler and T. Cyril G. Butler commenced in

ERIC WAKEFIELD BUTLER

1932 and Kenneth J. Foss commenced in 1934. They all three joined some voluntary organization for active service in 1938 and at the outbreak of war in 1939 were called to the Services. Cyril Butler and Kenneth Foss returned to the business in 1940 and Peter Butler in 1945. On the formation of the Local Defence Volunteers in May, 1940, the two members from the Services organized and ran a very successful Company's Contingent which, subsequently, became a section of the Home Guard.

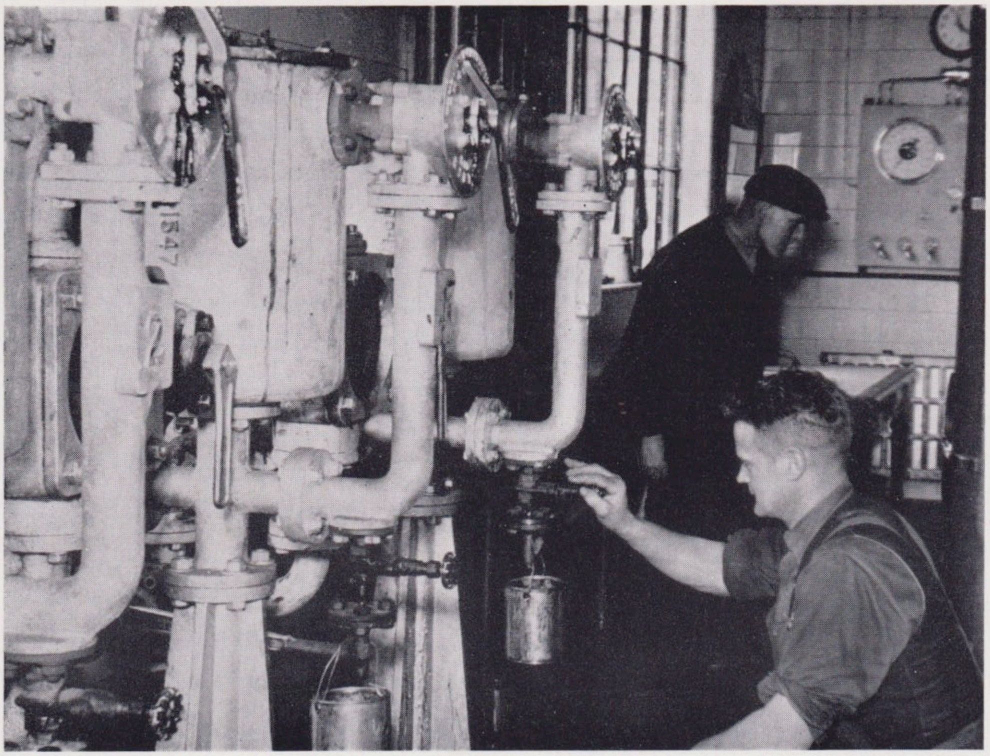
The history of the operation of the Company during the second World War was very interesting, although under very strict Government Control, as nearly every product obtained from tar was in some form or another essential to the war effort.

Pitch was required either in the form of Road Tar blended with Creosote for the surfacing of aerodromes and roads or for the manufacture of Briquettes to utilize the small coal and thus economize on solid fuel. Creosote mixed with Pitch was also used for a liquid fuel, replacing imported fuel oil and thus saving shipping space. Large quantities of Creosote were also used in the Hydrogenation process developed by Imperial Chemical Industries at Billingham for the manufacture of high octane petrol for use particularly in aircraft.

Tar Acids were invaluable for the manufacture of Plastics whose various uses were innumerable. Naphthalene was used for the manufacture of Phthalic-Anhydride, the raw material required in making a type of Plastic. The lighter products such as Benzole and Toluene, etc., were still being used for the manufacture of many important fine chemicals, and explosives such as T.N.T., etc.

The premises of the Company came under some of the heavy bombing of 1940/41 and considerable damage was experienced at the Head Office and Stores at St. Philips. It was only through the prompt action of the Fire Watchers that the whole of St. Philips Depot was not destroyed. Fortunately Crews Hole Works received no direct hit although it suffered some consequential damage from bombs exploding in the vicinity of the Works.

In May, 1947, the Ordinary Shareholders of the Company who were members of the family sold a portion of their shares for distribution to the public after

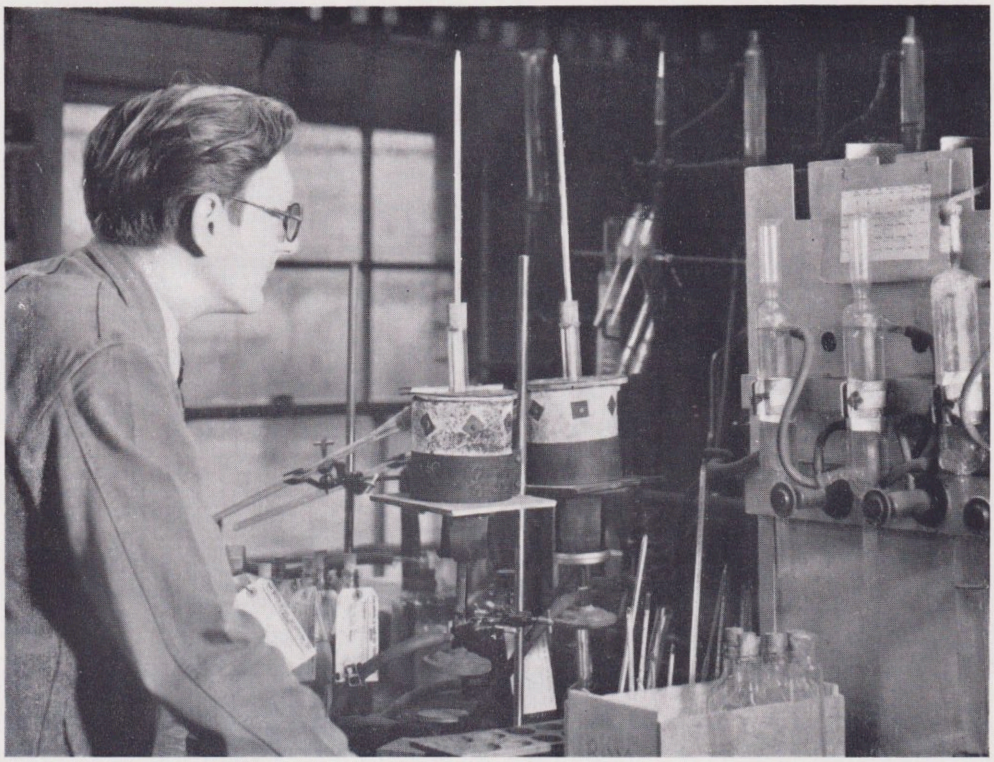


TAR DISTILLATION UNIT CONTROL

converting the 246,898 Ordinary Shares of £1 each into 987,592 Stock Units of 5s 0d. each, so that from this time both the Preference and Ordinary Capital could be dealt with on the Bristol Stock Exchange.

The post-war period was one of great difficulty and everything was done to obtain the necessary permission to repair the ravages of war at various Works and, up to the present time, large sums of money have been expended in installing the most modern form of plant in both renewals and repairs. It was also necessary to increase the capacity to meet the demands of the rapidly expanding Gas Industry.

The Company early saw the necessity to increase its export business and from 1945 representatives of the Company regularly visited the U.S.A. and South America and thus developed sound export business with those countries.



LABORATORY

As a result of the nationalization of the Gas Industry in 1947, production of Coal Tar from Gas Companies came under the control of only a few organisations, namely, The Gas Boards, rather than from a large number of individual Gas Undertakings, and the happy relations that had existed for so long between those many undertakings and the Company were in danger of being upset.

Protracted negotiations between the Gas Boards and the Company took place which culminated in the signing of a long-term contract on a co-operative basis, the former taking a financial interest in the distilling side of the tar. These arrangements necessitated in 1952 the division of the interests of the Company as between Tar Distilling on one side, and its other activities on the other. On January 1st, 1952, the Bristol & West Tar Distillers Limited was formed, with a capital of

£350,000 in which Company the whole of the tar distilling interests of Wm. Butler & Co. (Bristol) Limited were vested. In the following year, the Company sold 25% of its holding in this Distilling Company to the South Western and Wales Gas Boards. In this way was continued the happy relations that had existed between producers and distillers in the past, and a very desirable partnership was maintained between a nationalized industry and private enterprise.

The separation of the tar interest from the Company's other activities, necessitated a great deal of re-organisation but has resulted in economies to the benefit of both the Parent Company and its Subsidiary.

T. Howard Butler and Eric W. Butler retired from active business in January, 1953, and left the management in the capable hands of E. Peter Butler, T. Cyril G. Butler and John S. Hatfield, the Managing Director being the first named gentleman.

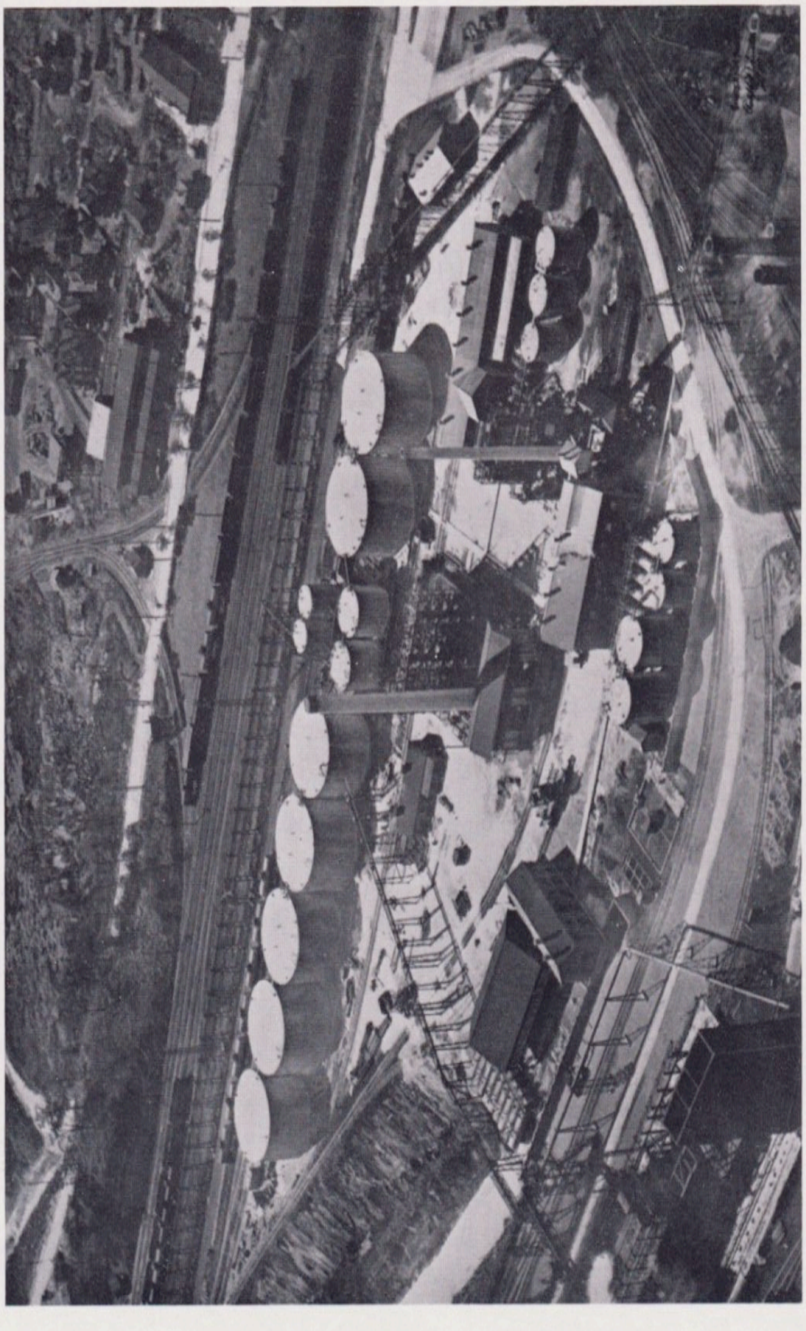
THOMAS HOWARD BUTLER, Ph.D., J.P., by A. G. Powell.

This book would not, of course, be complete without reference to the career of the author, Dr. T. Howard Butler, and his brother, Mr. Eric W. Butler, whom it has been a privilege to know in city life for many years. Both have maintained what might be regarded as a family motto—" Service, not self."

One's first knowledge of Dr. Butler was when 50 years ago, he was an enthusiastic player of Rugby football as a member of the Clifton Club, one of the oldest in British football. In later years he became a representative for Gloucester County for Tennis in the Summer and Badminton in the Winter.

In addition to business responsibilities, he had the incentive of family tradition to take up public work and he became a familiar and popular personality in many phases of our city life. How he succeeded in fulfilling the many calls upon his voluntary service must have puzzled his many friends. As the years have passed this phase of his life has increased rather than diminished and now, at a time when so many business men pass into retirement, he seems to have more responsibilities than ever, having been appointed Chairman of the Cossham-Frenchay Hospital Management Committee, one of the largest institutions of its kind in the West of England.

Dr. Butler was born in 1887, educated at Clifton College, Bristol University College and Jena University, Germany. He started his business career as Works



TAR DISTILLING WORKS AT CLAIRTON, PENNSYLVANIA, U.S.A.

Chemist with the family firm in 1909, subsequently becoming Works Manager at Crews Hole Works. Eight years later, he joined the Board of Directors, and was appointed Managing Director and Secretary in 1921, succeeding Mr. Thomas Butler. On the death of Colonel J. B. Butler in 1935, he was made Chairman of the Company. He is also Chairman of the Bristol & West Tar Distillers Ltd., Francis F. Fox & Co. Ltd., Allen Davies & Co. Ltd., and has held directorships of the Midland Tar Distilleries Ltd., Roads Reconstruction (1934) Ltd., Burts & Harvey Ltd., and Lennard & Co. (Shoreham) Ltd.

In the public life of Bristol, Dr. Butler has taken a leading part. He was appointed a magistrate in 1934, President of the Anchor Society in 1924 and President of the Grateful Society in 1944, both of these being benevolent societies founded to perpetuate the memory of the great philanthropist, Edward Colston. In 1928, Dr. Butler was President of the Bristol Chamber of Commerce and Shipping, President of the Bristol Rotary Club in 1925 and President of the Colston Research Society in 1948. To the foregoing list of appointments may be added that Dr. Butler was President of the Association of Tar Distillers in 1921—one of the oldest trade associations—President of the Bristol Commercial Rooms in 1931, and President of the British Tar Confederation in 1948. In 1952 he became Master of The Worshipful Company of Paviors, one of the old City of London Guilds, that year being the 650th of its existence. During the second World War he was a member of the Man Power Board of the Ministry of Labour.

Distinctions conferred upon Dr. Butler include the following: made a Fellow of the Royal Institute of Chemistry in 1919 for special research work carried out during the war; the Honorary Degree of M.Sc. by the University of Bristol on its foundation for work carried out at University College and subsequent work in Germany.

In the second World War, Dr. Butler served on many Government Committees associated with the Tar Distilling Trade, Naval Stores and the Petroleum Industry.

To the foregoing may be added that Dr. Butler's particular spare time interests are yachting and shooting.

ERIC WAKEFIELD BUTLER, by A. G. Powell.

Eric Butler retired after 46 years' service with Wm. Butler & Co. in 1952, but remains Vice-Chairman of Directors. He was born in Bristol in 1888, educated at Clifton College and Bristol University College and to prepare himself for his career, was apprenticed to W. J. Stevens & Sons, a Bristol Firm of Mechanical Engineers. He commenced his active association with Wm. Butler & Co. in 1907 and became a director ten years later. Incidentally, Eric Butler is also a director of the Bristol & West Tar Distillers Ltd., Francis F. Fox & Co. Ltd., Allen Davies & Co. Ltd., and the Bristol and West Building Society.

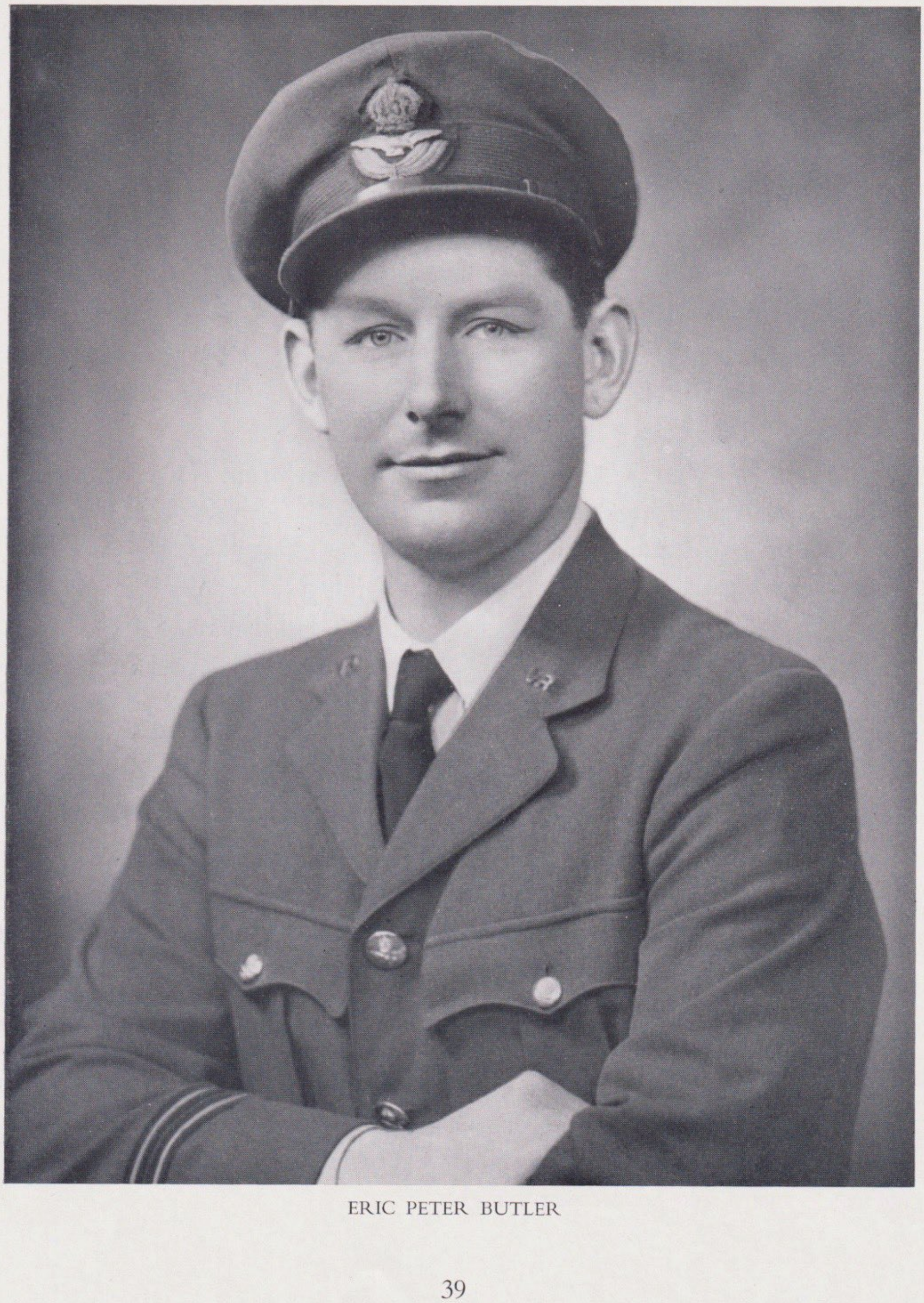
After several years' practical experience in operating all the processes carried on by his firm, Eric Butler became Works Manager at his Company's establishments in Bristol and Gloucester.

In 1926 he went to the United States to take charge of the designing, erection and operation of the tar distillation plant at Clairton, Pa. This necessitated residing in New York and Pittsburgh for nearly two years. Details of this plant have already been described.

Owing to the fact that Wm. Butler & Co. during both world wars were manufacturing large quantities of pure toluene and pure benzene for making high explosives, Eric Butler was placed in a reserved occupation and was therefore prevented from joining the Forces but during the 1914/18 War he served with the 2nd (City of Bristol) Volunteer Battalion of the Gloucestershire Regiment. During the Second World War, he served with the Local Defence Volunteers.

Eric Butler has for many years held the position of Special Commissioner of Inland Revenue—an honorary position—in the Keynsham and Saltford Districts in which he then lived and in 1933 he was President of the Anchor Society, one of the Colston Societies which for the past 185 years has annually raised funds for benevolent purposes. He is a Freeman of the City of London and a Liveryman of The Worshipful Company of Wheelwrights.

Always a believer in sport as an aid to physical fitness, Eric Butler was a good all-rounder; his activities in this direction included tennis, squash rackets, shooting, fishing and flying. In 1936 he obtained his pilot's licence to fly his own aircraft and made many solo cross-country flights.



ERIC PETER BUTLER

CHAPTER IV

OTHER ACTIVITIES AND PREMISES

THE earlier chapters have described the main interests of the Company—*i.e.*, Tar Distilling. There are many other projects and activities in which the Company has participated over its history and some of them are described in this chapter.

Rosin Distillation

It must be borne in mind that it was not until the latter part of the 19th Century that the production and distillation of Petroleum became an important factor in the economy of the world. Up to that time there were very few oils suitable for lubrication but probably the most important, for cheap lubrication at any rate, were the oils distilled from Rosin.

The Company at their Crews Hole Works, soon after these were built, commenced distilling Rosin, from which is obtained a spirit used in special varnishes, also various grades of oil which were used for grease making, soap making, lubrication and electrical insulation. The residual Pitch was converted into Brushmakers' Pitch. Pitch is still used in certain Brush Factories particularly in Blind Institutions, but the larger manufacturers now use a " wired on " method of cementing the bristles to the head. This process of Rosin distillation was carried on up to 1923 when it no longer became economic, owing to the importation of the many varied petroleum oils.

Naval Stores and Wood Tar

" Naval Stores " is the expression used to encompass the production, shipping and sales of Turpentine and Rosin and other products derived from the gum collected from the pine tree. The chief source of supply is from the Southern States of America, but other important points of production are France, Spain, Portugal and Russia. The gum is obtained from the pine trees by tapping in a similar manner to rubber production. This gum, when distilled in copper stills, produces Turpentine, the residue being Rosin.

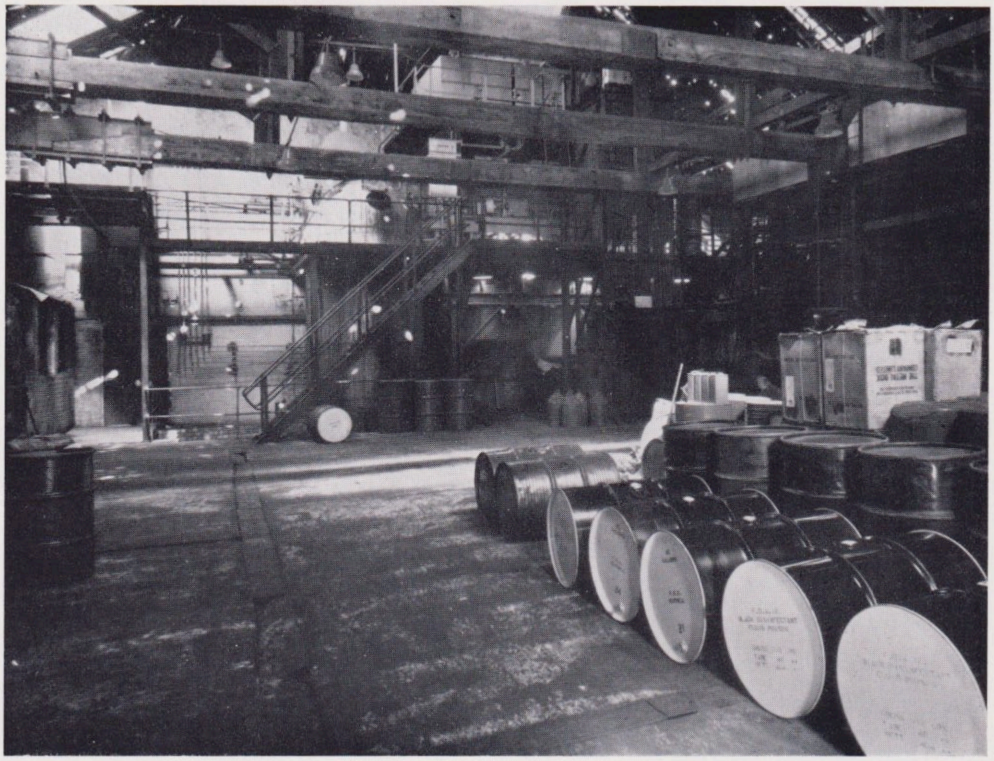
The Company have, from early history, imported Turpentine and Rosin. The Rosin is largely used in the soap trade, paper trade as Rosin Size, and the paint and varnish trade. Turpentine is mostly used in the polish trade; as a solvent and carrier in the manufacture of varnish and paint, also in the preparation of some pharmaceutical and chemical products.

For some considerable period, Bristol merchants were, next to London, the second largest importers in the country and this Company has always imported the majority of these materials into Bristol, amounting in pre-war days, to some 30,000 barrels of Rosin and 10,000 barrels of Turpentine annually. In the early days, shipments from the Southern States of the U.S.A. came in sailing ships, the whole cargo of some 20,000 barrels being consigned to the Company.

In this section is included Wood Tars. These are manufactured in the woods in the Northern Countries of Europe, particularly Russia and Scandinavia and the tar is condensed out of the black smoke arising from the burning of timber for the manufacture of charcoal. The importation of these so called Archangel and Swedish Tars was important for the manufacture of ropes. They have gradually gone out of use during this last half century and been replaced by synthetic rope dressings. Tars were shipped in a very crude type of barrel and the Company shipped them in small sailing ships and finally, in steamers, but even shortening the time of the journey by this means, did not prevent serious leakage.

Disinfectants

The earliest form of disinfectant was Phenol, generally known as Carbolic Acid. Then very soon followed the manufacture of a carbolic disinfectant that was either soluble or would form an Emulsion in water. So early in this century, this Company started manufacturing these Coal Tar Disinfectants. Hygiene, as we know it, was little known but as the importance of cleanliness grew, so did the demand for disinfectants. Starting in this small way, the disinfectant business of the Company has developed into a big business and they now manufacture a large range of fluids to meet the modern requirements. These include such well-known articles as Sanitary Fluid, Lysol, High Co-efficient Fluids, Black and White, and a Winter Wash for spraying fruit trees, all of which are made from Coal Tar. Again



DISINFECTANT FACTORY

there are the Pine Disinfectants which being non-poisonous, are very popular. Under this range of manufactures by the Company are Rope Dressings, Weed Killers, Soil Fertilizers and other horticultural preparations.

Importation and Distribution of Petroleum

After the First World War, it became imperative for the trade to find an outlet for the large quantity of Benzole that had been produced, particularly for war purposes. The National Benzole Co. Ltd. was formed to distribute Benzole as a motor fuel, in which Wm. Butler & Co. had a substantial financial interest. This Company established a distributing depot at St. Philips premises and opened jointly with the National Benzole Company an Ocean Installation at Avonmouth

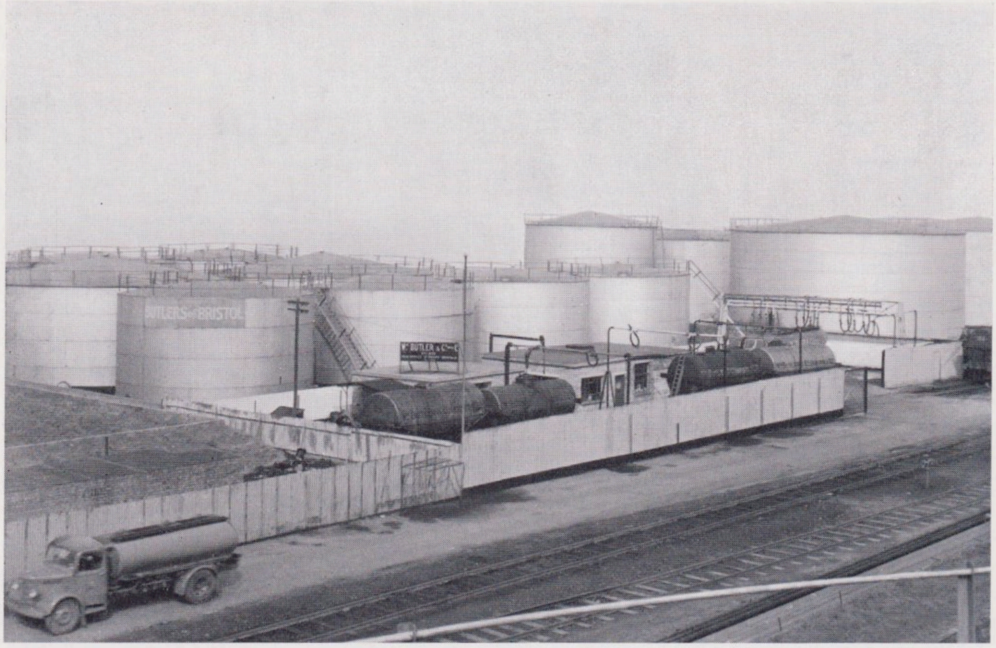
Docks in 1925. The depot at St. Philips continued to be a distributing centre for National Benzole right up to the end of the Second World War. On the other hand, the Avonmouth Depot was taken over entirely by this Company and used for the importation of White Petroleum products other than petrol. Again in 1936 a further depot was opened at Avonmouth. The capacity of these two Installations now amounts to 10,600 tons. These Ocean Installations are used for the importation and distribution of White Spirit, Kerosene, Gas Oil, Diesel Oil, etc.

As a result of the rapid development of the petroleum industry and a fluctuating market for Turpentine, the users of the latter looked about for a petroleum product that would replace the genuine article. It was in 1908 that the Company erected special Stills at their Crews Hole Works to distil Roumanian petroleum for the manufacture of White Spirit. This continued for many years until the large Petroleum Companies were able to manufacture a satisfactory article themselves. From then on, this product has been produced by the various Petroleum Companies but the distribution remained in the hands of the originators, so that today, the Company is the second largest distributor, delivering from vantage points all over the British Isles. The use of White Spirit by the Paint, Varnish, Polish and many other trades has today almost entirely replaced genuine Turpentine.

Lubricating Oil Refinery

Most of the Lubricating Oil used in this country up to the Second World War was imported from abroad. Owing to the shortage of tanker space, it was necessary to recover good oil from used sump oil from internal combustion engines, particularly from aeroplanes. After considerable research, a plant was installed by the Company in 1942. This was capable of converting the waste oil from motor and aeroplane factories, Government departments and garages situated in the West and South of England into lubricating oil that would pass specifications required by such discriminating authorities as Admiralty, Air Ministry and War Office.

The work during the War showed that Lubricating Oil could be recovered and refined on a profitable basis. The improved supply position for new plant, which came after the War, enabled the Company to install the most modern plant to continue this valuable addition to its activities.



AVONMOUTH No. 1 DEPOT

Iron Roads Limited

In 1932 the Company acquired the patents of F. G. Small, whose idea was to produce a block of cast iron having a serrated surface. Each block was an equilateral triangle having sides of one foot in length. The block had protruding from it three feet at the apexes on which it rested on the surface of the road which was preferably finished with concrete. Jointing of the blocks was done by running in hot bitumen. The patent was good and very sound as each block was supported on a perfect three point suspension and no rocking of it could take place. It also had the advantage of being silent when traversed by rubber tyred vehicles, as well as non-skid.

Several sections have been laid throughout the country, especially at busy bus stops and a similar type of road has been used for the surfacing of the Mersey Tunnel. The Company did not prove successful owing to the high cost of iron and the Highway Authorities were not willing to pay the initial high price.

WORCESTER WHARF, BIRMINGHAM

At the time the Company was started, there was a prospect of an overproduction of iron, some of which could have been absorbed by this novel process to manufacture a more or less permanent roadway. The time may yet arrive when the Iron and Steel Industry will require a cheap outlet such as this for surplus iron.

Tung Oil

Tung Oil, or China Wood Oil, is a vegetable oil produced from the nut of the Tung tree which is indigenous to China. The Imperial Institute in the period after the First War investigated the possibilities of growing Tung trees within the British Empire. Experiments were carried out in Burma, India, East Africa, Australia and New Zealand. They all met with some success in the same way that the Americans succeeded in growing this tree in their Southern States. It

WORCESTER WHARF, BIRMINGHAM

was soon found that semi-tropical conditions were required and the best success was met in the mountainous districts of tropical countries.

Tung Oil is one of the most valuable drying oils required by the Paint and Varnish and Linoleum Industries. The Paint Federation formed a Company called Tung Oil Estates Ltd., with a plantation situated in the Upper Shan States of Burma. This Company, in 1935, took substantial financial interest in this project and assisted materially in directing its operation. The Tung tree takes some five years to come into production and a very substantial crop of oil would have been available for distribution to the paint trade in 1940. It was most unfortunate that the Estate was involved in the Japanese war and, as a result, was totally destroyed. It will be recalled that Burma was handed over to the Burmese at the end of the war and the shareholders of this pioneering enterprise have had practically no compensation for the loss of their valuable property.

Birmingham

The Midland area has always been a very important field for the distribution of the products of the Company. It became necessary to open a distributing depot at Birmingham and in the year 1907 a long term lease was taken by the Company from Sharpness New Docks Gloucester & Birmingham Navigation Co. at Worcester Wharf, Birmingham. This depot was very favourably placed, being situated in the centre of Birmingham and having rail and canal facilities. A regular service by water from Bristol, Gloucester and Birmingham was instituted, using the Company's transport which enabled these goods to be sold at competitive rates with the manufacturers in the Midlands. This depot has been of great service to the Company and is in operation at the present day although the water transport has been entirely replaced by rail or road communication.

London Office

For many years a representative has operated in the London area. For various reasons, the London Office has been changed many times. It started in the City but owing to the big business houses with which the Company traded, moving further westward, it was found more economic to operate from the homes of the representatives. The present London Office is:

31 Cissbury Ring North,
Woodside Park,
LONDON, N.12.

CHAPTER V

TRANSPORT

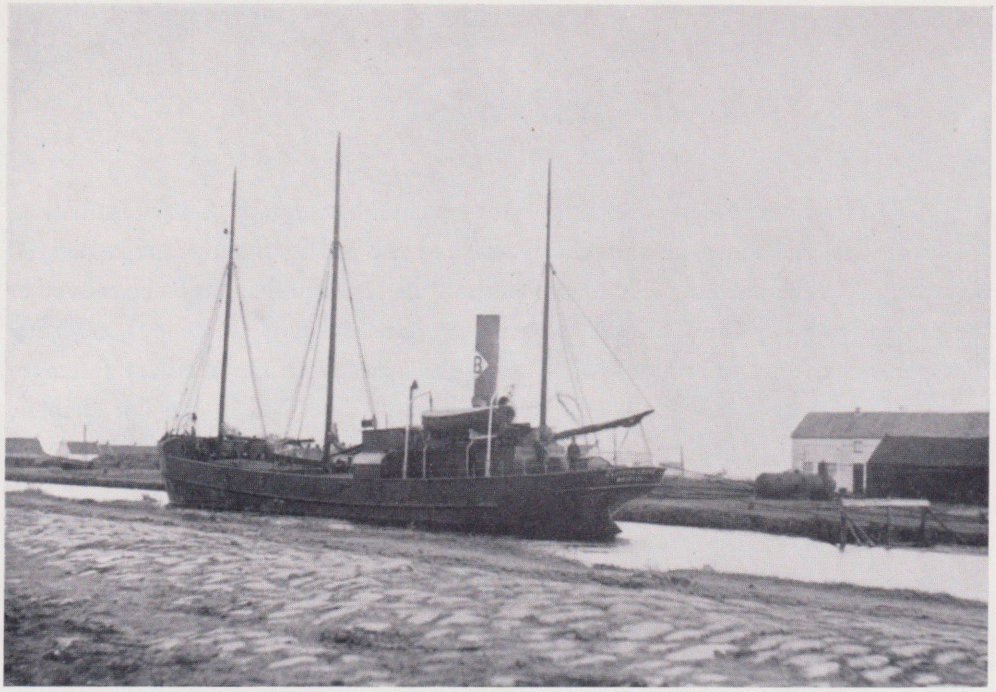
COST of transport plays a very important part in the economy of Tar Distillation, in that tar is a comparatively cheap article as also are the main products derived therefrom. In the distilling side of the business the tonnage that has to be moved at the present time by the Company's own transport amounts to some 3,000/3,500 tons per week, for the products only and quite apart from the ancillary tonnages such as fuel, chemicals, etc. Other departments as described in the last chapter, require additional transport to move 650/700 tons per week.

Water Transport

The two Works at Crews Hole and Upper Parting, Gloucester, built by William Butler, were sited at these points because they were alongside the Rivers Avon and Severn respectively. Movement by water, at that time, and indeed right up to the first World War, was the cheapest form of transport.

The earliest form of water transport was by means of canal or long boats carrying some 40 tons of liquid material in tanks. These were hauled by means of a donkey or pony and it was customary for the Captain to live on board with his family whilst making trips of long duration. Charlie Sweet of Bristol was the first Captain who used to take his boat to Bath, Bradford, Trowbridge, Devizes and even as far afield as Newbury, to collect tar, going away for periods as long as a week or more at a time. In the same way, Jim Thomas of Gloucester used to travel up the River Severn to Worcester and Bewdley. This job of piloting boats on the river became a family affair and at both Bristol and Gloucester there has been a member of the Sweet family and the Thomas family in charge of one of the barges of the Company right up to recent times.

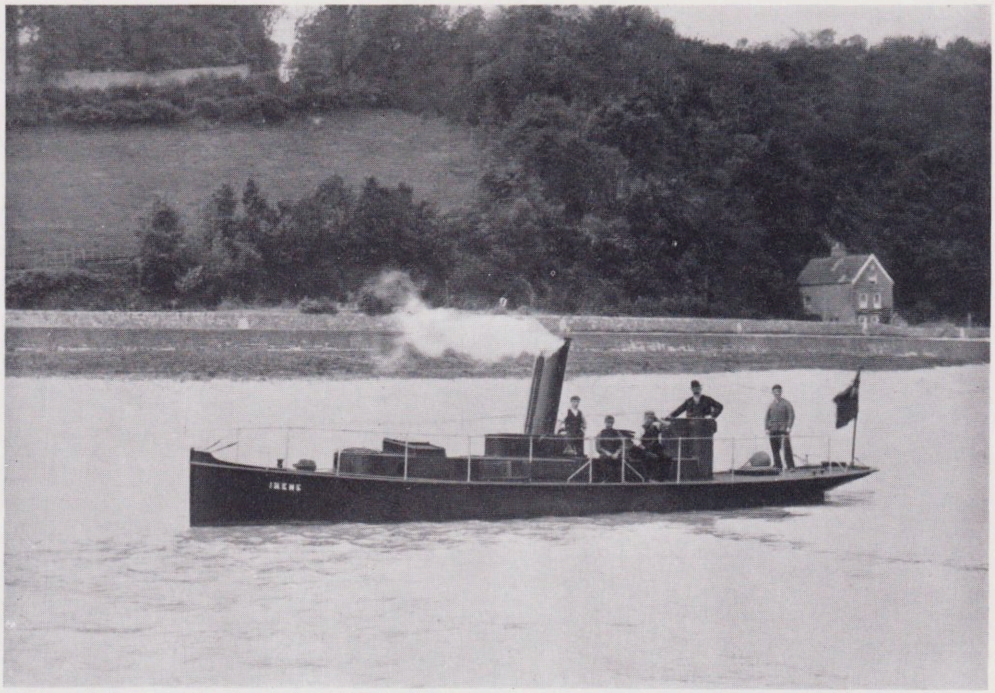
It later became necessary to provide larger type tank barges to transport materials within the City Docks but the size was always restricted at Bristol to a boat that could pass through the Feeder Canal and the Feeder Lock into the River Avon. It is stated on good authority that the "*Alexander*," known to the Company



s.s. "*CLIFTON GROVE*"

as the "*Alec*," purchased second-hand by Wm. Butler, was one of the first iron barges ever built. In any case, the quality and the workmanship must have been good as it is still in use as a storage barge and must be over 100 years old.

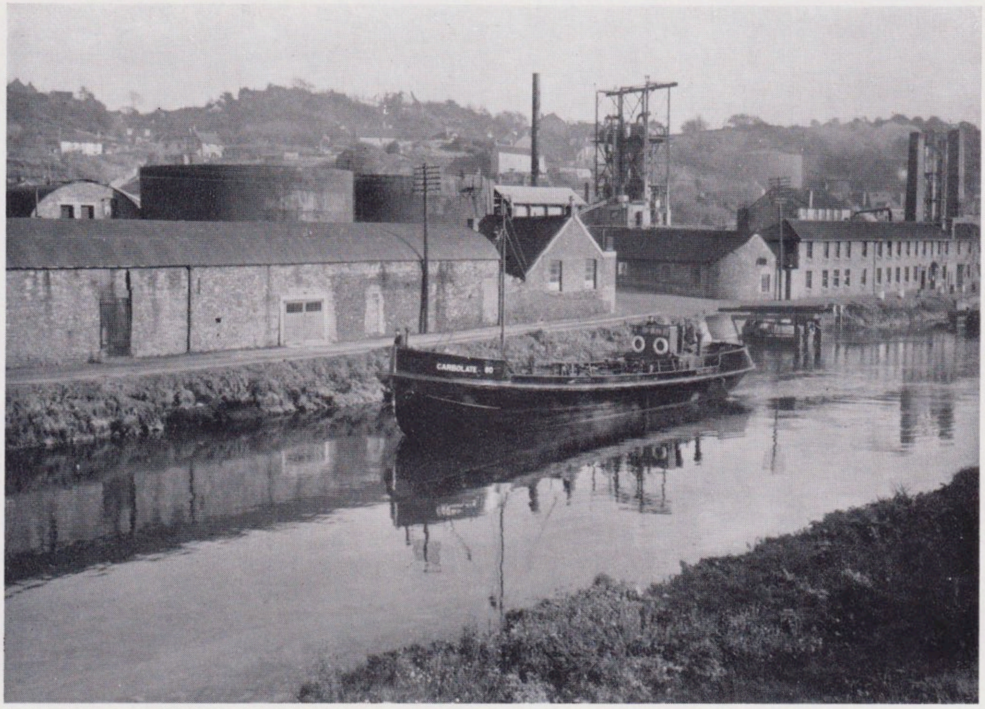
It has already been stated that the most important market for the Pitch produced at Crews Hole and Gloucester was the Crown Preserved Coal Co., of Cardiff and Port Talbot. William Butler purchased the steam barge "*William*," the chief purpose of which was to transport Pitch from Bristol to Cardiff. Another more economic method for the transportation of Pitch to South Wales was the utilization of sailing trows, and the Company acquired several of these ships. They carried the Pitch in bulk to the South Wales Ports, returning with a cargo of coal to be used in the Works. Other barges were used within the City Docks area and were towed by the first steam tug acquired by the Company, named the "*Ellie*."



STEAM TUG "*IRENE*"

This boat existed for some years but came to an eventful end by being wrecked on the "Denny," an island in the River Severn at the mouth of the River Avon. It recalls what might have been a tragic party. The three brothers—William, Joseph and Thomas, together with some friends, set out one week-end to land on the "Denny." The "*Ellie*" was anchored and the landing took place in a rowing boat. The tide receded very fast and the "*Ellie*" dried out and fell over on her side. With the rising of the tide, she filled and foundered and it is interesting to relate that so strong was the tide in the Severn that the hull of the ship was seen at low tide somewhere near "Steep Holme," whilst the boiler was observed near Sharpness, a distance between the two points of some 40 miles.

The "*Ellie*" was replaced by the steam tug "*Irene*" which was used up to the time self-propelled barges were installed.



M.B. "*CARBOLATE*"

In 1883 the Company had built by G. K. Stothert & Co., the "*Clifton Grove*," a steamer with a carrying capacity of 500/550 tons. This was a tank ship with one main hold which was utilized for collecting tar from the ports in Southern Ireland such as Cork and Limerick, and for delivering creosote, for the preservation of timber, at various ports where there existed creosote installations. For this purpose, she went to ports in Ireland, the Bay of Biscay, Northern France, Belgium and Holland. This ship was commandeered by the Admiralty in the first War and ended her life in foundering in a gale in the North Sea.

It was in 1903 that two steel barges, named "*Darby*" and "*Jolly*," of 50 tons capacity, were built by R. Cox & Sons of Appledore. They were, in the first instance, towing barges but later became self-propelled, the "*Darby*" having a single cylinder Kromhout engine, the "*Jolly*" a twin cylinder Brit engine, both burning light Kerosene.

PART OF ROAD TRANSPORT FLEET

It was in 1911 that the "*Carbolate*" was built by Cox & Co. of Falmouth, a vessel containing six tanks and having a total capacity of 120 tons. She was built for the purpose of transporting liquids to and from Bristol and Gloucester Works. She was a twin screw ship with two twin cylinder Brit engines and was economical to run. To get to Gloucester, she had to traverse the Avon and Severn to Sharpness and thence through the Sharpness Canal to Gloucester.

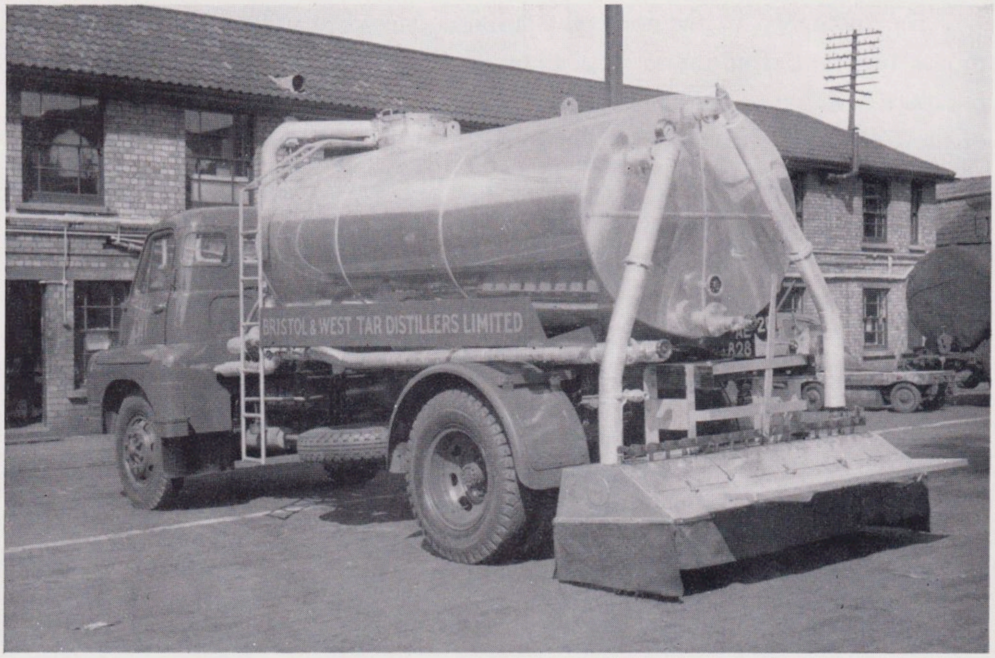
Before the order was placed for the ship, it was necessary to ascertain the possibility of going the whole of the way to Gloucester by the River Severn. A trial was made on the motor barge "*Jolly*" sailing from Avonmouth Docks on the early flood tide. This took the ship at some 20 m.p.h. up the Severn and under Sharpness Bridge, following just behind the Severn Bore. On approaching Framilode, the engine seized, caused through the circulating water being so dirty that it filled the water jacket with sand and mud. A serious disaster might have taken place but fortunately repairs were carried out in time to complete the trip to Gloucester before the ebb tide set in. It was rightly decided that this was not a desirable route to traverse and it was safer to use the canal from Sharpness to Gloucester.

These various self-propelled barges are operating at the present day, the only difference being they have now installed in them diesel engines, which has enabled them to be operated in competition with road and rail transport.

The method of transporting Pitch to South Wales by means of trows became uneconomic owing to the length of time taken and the higher cost of wages, so that the Company, in 1914, had built a motor ship called the "*Kingsholm*" by Isaac J. Abdela & Mitchell of Queensferry. She had hardly gone into commission when the first World War started and she was commandeered. The Admiralty required this ship for use in the Middle East but unfortunately she never arrived there as she was torpedoed in the Bay of Biscay.

Rail Transport

Rail tanks for the transport of Crude Tar from various inland Gas Works and rail tank transport of products, both tar and petroleum, played an important part in the operations of the Company. They have centred round the rail head at St. Philips Depot and the Ocean Installations at Avonmouth. The fleet, starting in a small way, has increased and today there is a total of 81 rail tanks.



ROAD TAR SPRAYING LORRY

Road Transport

In the first half of the Company's history, horses were the only means of road transport and indeed, it was not until 1926 that the last horses of the Company were sold. It will be recalled that in the days of horse transport, great pride was felt by owners in having the smartest and best horses for haulage purposes. There was an annual competition within the City of Bristol for these horses, for which there was great rivalry. The parade through the streets of the City was a spectacle much appreciated by the public and it is recorded that Wm. Butler & Co. were the winners on several occasions.

It is hard to believe what an important part horses played in both industry and pleasure in those days. It is often, however, recalled by the old employees the time when William Butler arrived at his place of business, driven in a carriage and pair, dressed in his frock coat and silk hat. Again, it was not unusual for some of the staff to arrive at their work, either on horseback or in a pony and trap.

The discovery of the internal combustion engine and the development of motor transport over the last 50 years, is too well-known to make other than reference to it, but transport, as already stated, being such a vital part in the economy of the Company, they had to develop road transport to meet their particular requirements. Motor haulage has in some measure replaced water and rail transport but it has particularly developed in the Company on a specialized form of deliveries. Road Tar, for the first 30 years of its application on the road, was delivered almost entirely in wooden barrels or steel drums. The development of modern times has been the application of road tar to the roads at correct high temperatures and under pressure by spraying direct from Tank Lorries. In order that this could be done, a specially constructed insulated pressure road tank has been designed which enables the tar to be transported direct from the Works and spread on the road in a matter of a few hours. Wm. Butler & Co. and its Subsidiaries are now operating a fleet of some 80 vehicles.

◆

CHAPTER VI

THE PROPRIETORS, DIRECTORS AND SECRETARIES

THE members of the family who have been responsible for the control of the business in the first three chapters are described at the end of each period for which they have been responsible. The careers of the other directors and secretaries of the Company and its Subsidiaries are being described in this chapter.

Bernard Minett Whittard

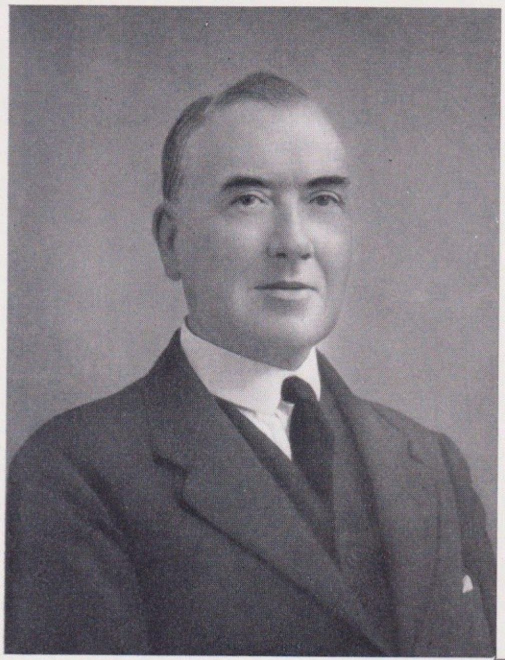
B. M. Whittard has frequently told his colleagues of the way he obtained his first and only appointment. Sent by his father at the early age of 13 years, he appeared in great trepidation before William Butler, in the year 1880. The interview must have been completely satisfactory, for, on being asked by his future employer what wages he expected to receive, replied to the effect " as much as I may be worth."

After serving his early years in the office, his capacity for salesmanship obtained him the position as the one and only traveller for the Company. From this, he became the representative of the firm in Birmingham, travelling extensively throughout the Midlands. In 1911 he returned to Bristol and was appointed Sales Manager. He became a Director in 1920, which position he held until his death on 17th May, 1939, at the age of 71.

His activities outside business were, in his early days, a great interest in the Bristol Cyclists' Club and later, golf. He resided for many years at Weston-super-Mare and became President of the Golf Club.

Arthur Joseph Newman, M.I.E.E., M.I.Mech.E., M.I.Struct.E., M.I.F.

A. J. Newman was born 16th June, 1877, and was educated in the High School in Dublin, after which he had engineering training in the country of his birth. He left Ireland in 1897 and whilst taking up some commercial appointment, he went in for Electrical Engineering training at the Merchant Venturers' Technical College from 1899-1902. He joined the Bristol Corporation Electricity Department as a pupil in 1902 and through merit and ability, advanced until he was finally



BERNARD MINETT WHITTARD

ARTHUR JOSEPH NEWMAN

ARCHIBALD TOM JEFFERIES

MINNIE SOPHIA BUTLER

appointed Chief Engineer and General Manager, which position he held until his retirement just prior to nationalisation of the industry. He was a member of various committees and councils in connection with the industry and a member of the Central Electricity Board for three years. He was appointed a Director of the Company in 1925.

Archibald Tom Jefferies

A. T. Jefferies had only one employer all his life, commencing with the Company in July, 1900, immediately on leaving school at the age of 14. Starting in a humble capacity in the office, he soon rose to a more responsible post through his ability and industry. He was singled out as a man with both sales and administrative capacity but he was of more value to the Company in inside work than as an outside salesman. He was appointed Secretary of the Company in 1927, which position he held until March, 1936. He was appointed a Director in 1934. He never enjoyed very robust health and died at the early age of 51, in September, 1937. He was well known locally, not only for his charm and personality but also for his prowess at golf.

Mrs. Minnie Sophia Butler

Miss M. Stephens married Major (later Lieut.-Col.) J. B. Butler in 1909 and on the death of her husband in 1935, she was appointed a Director of the Company. She relinquished this appointment in 1940 in favour of her son-in-law, K. J. Foss. She was always deeply interested in hospital work, particularly at Cossham Memorial Hospital and subsequently became a member of the Cossham/Frenchay Hospital Management Committee.

Eric Peter Butler

E. Peter Butler was born on 27th March, 1913, and was educated at St. Peter's Preparatory School, Weston-super-Mare, and Oundle School, Oundle, Northants. On leaving school, he spent twelve months divided between France and the United States, where he trained to take up duties in the Company which he joined in April, 1932. He became a Director in 1939 and was appointed Managing Director in 1952. He represents the Company on the Board of Subsidiaries and Associated Companies of Francis F. Fox & Co. Ltd., Bristol & West Tar Distillers Ltd., Tarphalte Ltd., and Creosote Producers Association Ltd. On the retirement of his seniors, he represented the Company on many committees of Trade Associations.

He joined the Auxiliary Air Force as an Airman in the Spring of 1939 and was called up in the R.A.F. in August, 1939. He was demobilized in December, 1944, with the rank of Flight Lieutenant. Like many of his ancestors, he has always taken an active interest in civic activities and became President of the Bristol Chamber of Commerce in 1949/50 and President of the Anchor Society 1950/51.

He is a Freeman of the City of London and Liveryman of the Worshipful Company of Horners.

Thomas Cyril Gwyer Butler, O.B.E.

T. C. G. Butler was born 19th April, 1914. He was educated at Clifton College, after which he studied practical engineering at The Bristol Aeroplane Co. From there, he went to France where he studied Naval Stores Production in 1932. He joined the Company in the same year and was appointed Director in 1939. In May of that year, he joined the local defence of the City in the Balloon Barrage which was embodied in August, 1939, and was posted to Harwich in October, 1939. He was released in August, 1940, for work of national importance with the Company, when he joined the Home Guard, rising to the rank of Major and specialised in weapon training and explosives instruction.

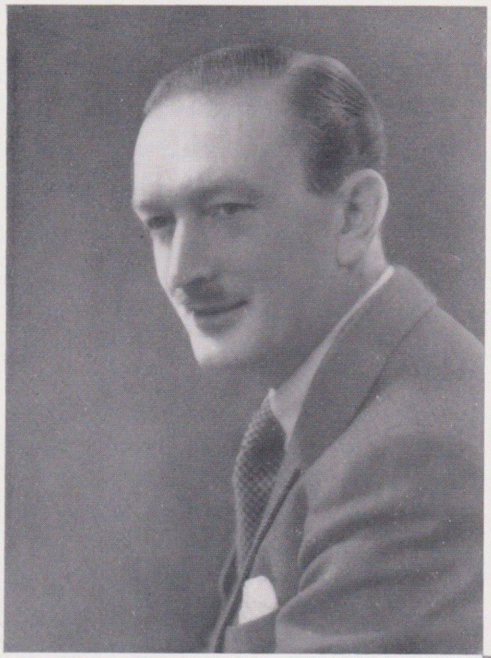
At the end of the war, he took an active interest in politics and became Chairman of the local constituency for the Conservative Party in the East of Bristol. This position he held until 1951 when he was appointed the Chairman of the Bristol Conservative Association.

He also takes a great interest in the St. John Ambulance Brigade and became President of the Works' Division, and later President of No. 2 Corps in the City of Bristol.

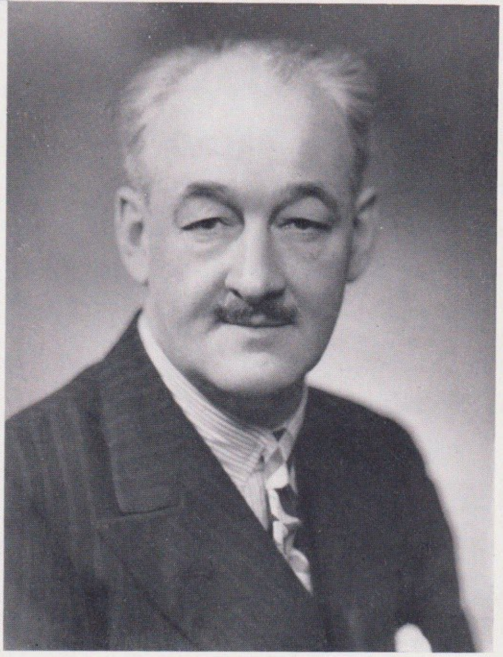
He represents the Company on the Board of Bristol & West Tar Distillers Ltd. and Francis F. Fox & Co. Ltd.

He is a Freeman of the City of London and Liveryman of the Worshipful Companies of Horners and Paviors.

For " Political and Public Services " he was awarded the O.B.E.

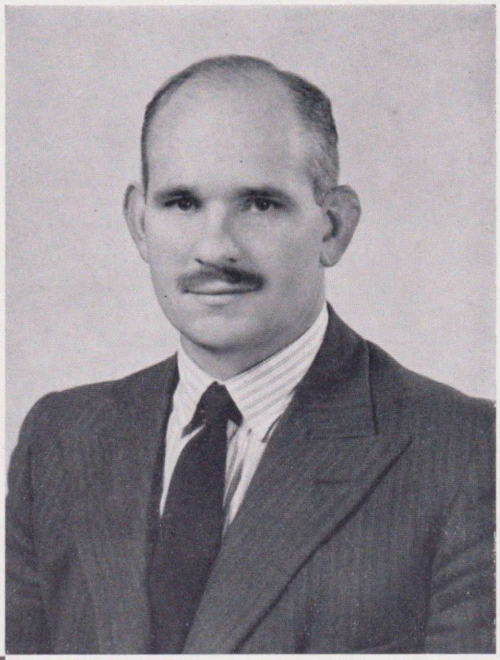


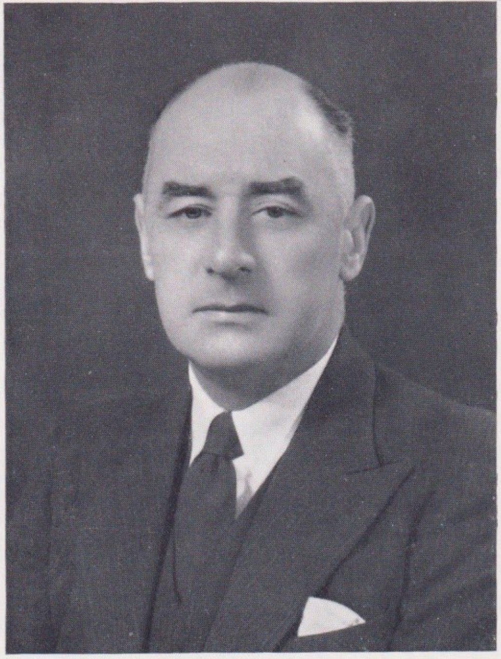
THOMAS CYRIL GWYER BUTLER



JOHN SMITH HATFIELD

KENNETH JOHN FOSS





STANLEY ORMOND ROCH

Kenneth John Foss

Born in Bristol in 1912, being the youngest son of Dr. E. B. Foss of Summerhill House, St. George, Bristol. He was educated at Marlborough College and joined the Company in 1934. In 1936 he married Margaret Beaumont, the third daughter of Lieut.-Col. J. B. Butler. He received a full training in the business by going through all the departments and finally concentrating on Works Processes at both Bristol and Gloucester Works. He joined the Territorial Army in July, 1939, and was called up for service as an A.A. Gunner in September, 1939, and was commissioned as a Second Lieutenant in May, 1940. He was appointed a Director in 1940, taking the place vacated by Mrs. M. S. Butler. He was released from the Army for work of national importance with the Company in 1940 when he joined the Home Guard, first taking command of the Company's Detachment, afterwards being appointed Major in command of the Home Guard Heavy Anti-Aircraft Battery R.A. defending Bristol, Gloucester and Cheltenham.

In his early days, he took a great interest in Rugby Football, being Captain of the Bath Club and receiving his County Cap for both Gloucestershire and Somerset.

John Smith Hatfield, A.R.C.S., A.R.I.C.

J. S. Hatfield was born of Canadian parents in Mexico City, Mexico, on 5th December, 1894. He was educated at Upper Canada College, Toronto and Uppingham School, Rutland. On leaving school he entered the Royal Military Academy, Woolwich, and was commissioned in the Royal Field Artillery in 1914. He was a prisoner-of-war for the whole of the First World War and on being released, entered the Royal College of Science, London, where he trained as a chemist from 1919-1921. On leaving college he took several appointments as Works Chemist until 1924 when he became Chief Chemist of the Medway Oil & Storage Co. Ltd. and rose to become a Director of the Company and Managing Director of the Power Petroleum Co. Ltd.

He joined the Company in August, 1935, as London Manager and early in 1940 joined Head Office Staff as General Sales Manager. He was appointed to the Board of the Company in 1944, acting in the capacity of General Sales Director. He represents the Company on the Board of Francis F. Fox & Co. Ltd.

Stanley Ormond Roch

S. O. Roch was born on 7th June, 1902, and on leaving the Bristol Grammar School, took practical training in engineering with firms in Switzerland and Bristol. He also attended the Merchant Venturers' Technical College, reaching a high engineering standard. He took an Assistant Engineer's position in the Cairo Waterworks, after which he came to Bristol and entered the Motor Business on his own account. He acquired a Builders' Merchant's business in Bristol and developed particularly the quarrying side which he ran for 15 years. In 1936 he married Sylvia Mary Beaumont Butler, second daughter of Lieut.-Col. J. B. Butler. He became a Director of the Bristol Brick Company in 1939 and was appointed Director of the Company in 1945.

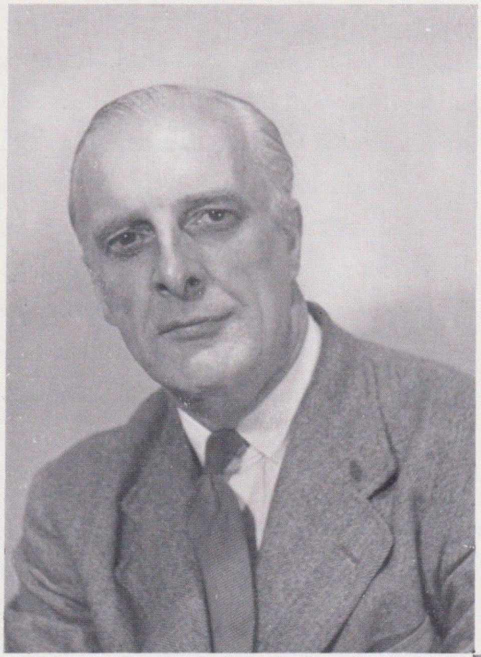
Harold Hall

H. Hall was born in Bristol in 1901 and after education at St. George Secondary School, he took up a junior position with the Company in 1916. He worked through many departments at Head Office but early showed a flair for salesmanship. From general sales, he was made responsible for the disposal of the Company's large production of road tar in the West of England. The sale of this product to the Local Authorities and Quarries has been his particular activity for the last 25 years. He was appointed to the Board of Bristol & West Tar Distillers Ltd. on 1st July, 1952.

Robert George Watt Eadie, B.Sc., F.R.I.C.

R. G. W. Eadie was born in Glasgow in 1902 and was educated at Whitehill High School and Glasgow University, where he graduated B.Sc. in 1923.

He served with the Glasgow Corporation for 17 years as Chemist, Works' Manager and General Manager of the four Tar Works of this Corporation Department. In 1940 he joined the Ministry of Fuel and Power as Deputy Coal Tar Controller and held this position until December, 1944, when he joined the staff of Wm. Butler & Co. (Bristol) Ltd. Since this time his activities have been devoted both to production and sales of tar products, particularly those of Naphthalene and Tar Acids. He was appointed to the Board of Bristol & West Tar Distillers Ltd. on 1st July, 1952.



HAROLD HALL

ROBERT GEORGE WATT EADIE

CECIL HARRY CHESTER

JAMES CARR

It has already been mentioned that the formation of the Bristol & West Tar Distillers Ltd. was brought about with the object of dividing the interests of Wm. Butler & Co. (Bristol) Ltd. and to facilitate the sale of a portion of the shares in the former Company to the Area Gas Boards. The sale of these shares took place on 1st January, 1953, when two representatives of the South Western Gas Board, namely—C. H. Chester and J. Carr, were appointed Directors of the Company.

Cecil Harry Chester, C.B.E., M.I.Mech.E., M.I.Inst.Gas E.

C. H. Chester was born in Wakefield in December, 1900, and educated at Silcoates and the Academy and later at Leeds University. Since then he has spent his whole life in the Gas Industry and was articled as a Gas Engineer at Wakefield and afterwards became Deputy Engineer and Manager and Secretary of the Southbank and Normanby Gaslight and Coke Company. In 1931 he was appointed Engineer, Manager and Secretary of the Swindon Gas Company and subsequently became a member of the Board. In this capacity he realised that the continued independent operation, in the future, of small gas works would not be economical and he was one of the first to introduce an integration scheme and link the works of the Swindon Gas Company with high pressure mains to smaller gas undertakings in parts of Wiltshire, Gloucestershire, Berkshire and Oxfordshire. Mr. Chester was also Chairman of the Lydney Gas Company, Director of the Freshwater, Isle of Wight, Gas Company and acted in various capacities as a Consulting Engineer. He also maintained a personal interest in the affairs of the Gas Industry and was Deputy Chairman of the Federation of Gas Employers, Southern Region, and a Member of the National Executive Committee of the British Gas Council. He saw service in France in the first World War as a Commissioned Officer in the West Yorks Regiment.

He has held the highest offices in the Gas Industry. He was President of the Yorkshire Junior Gas Association in 1926 and President of the Institution of Gas Engineers, 1949/50.

During the second World War, he was the Regional Engineering Advisor for the Ministry of Fuel and Power, responsible for the maintaining of coal supplies to Gas Undertakings of Wiltshire and Somerset. For these services he was appointed an O.B.E. in 1943 and was promoted to C.B.E. in 1951. On the nationalization of the Gas Industry he was elected Chairman of the South Western Gas Board and represented this body at the Coronation of H.M. Queen Elizabeth II and was the recipient of the Coronation Medal.

He has always maintained a keen interest in sport and played cricket and football in his native Yorkshire in his younger days and is now chiefly interested in shooting and golf.

James Carr, O.B.E., M.C., A.M.I.Mech.E., M.Inst.Gas E.

J. Carr was the fourth generation of his family to serve the Gas Industry. He was educated at Bootham School, York, and served his articles with the late Mr. Isaac Carr and did not complete them until after the first World War. He served as a Commissioned Officer in this war from October, 1914, to the middle of 1919, during which he was awarded the Military Cross, the Belgian Croix de Guerre, and was twice mentioned in Despatches. His first service to the Gas Industry was with the Widnes Corporation, Gas and Water Department. Then in May, 1924, he joined the Stretford & District Gas Board, finishing as Chief Engineer and General Manager in 1945. From then onwards, until the nationalization of the Gas Industry, he was Engineer and General Manager and Director of the Bristol Gas Company. Since nationalization, he has held several important positions in the South Western Gas Board, being Northern Divisional General Manager, Area General Manager, and subsequently Deputy Chairman of the Board.

He was awarded the M.B.E. for special services in the Manchester Air Raids in Christmas, 1940, and in July, 1953, he was awarded the O.B.E. for special services to the Gas Industry.

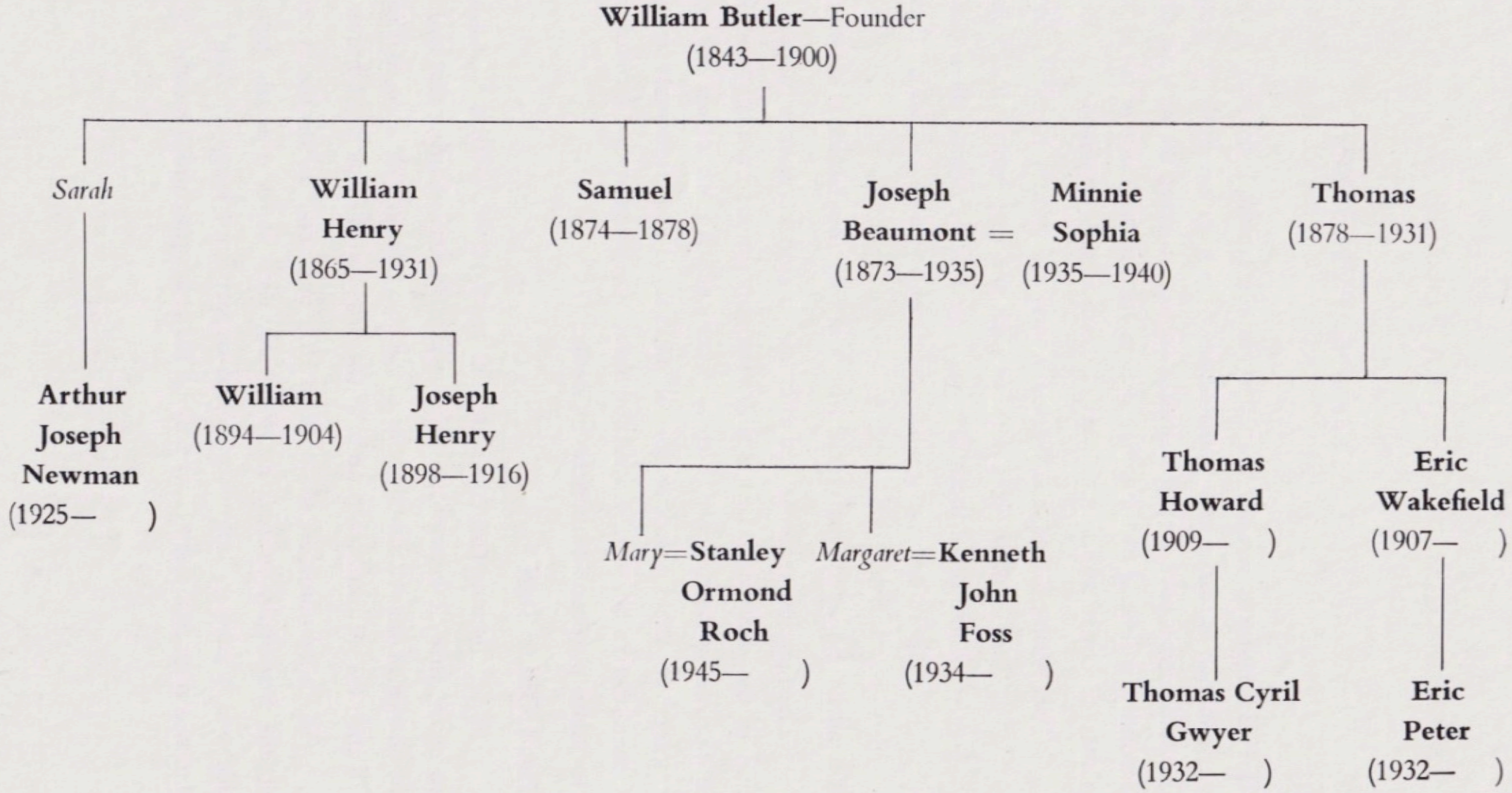
Secretaries of the Company

Since the incorporation of the Company in 1905, the position of Secretary has been filled by the undermentioned gentlemen, most of whom have already been referred to.

Particular reference must, however, be made to A. Frank Ward, A.C.A., who was appointed Secretary in 1924. He had been a member of the Staff of Messrs. Grace, Darbyshire & Todd, who were the Company's accountants. This firm was the successor of Messrs. James & Henry Grace, who had always audited the books and given financial advice to the Company. During the time that A. F. Ward was Secretary, important negotiations were carried out with the United States on the designing, building and operation of Tar Distilleries. He made several trips to America during this period. At the end of his three years' contract with the Company, an opportunity came to him to acquire a partnership in his old firm which he took up and as the result of which, he has become the senior partner.

Thomas Butler	From incorporation of Company in 1905 to January, 1921.
Thomas Howard Butler	1921—August, 1924.
A. Frank Ward, A.C.A.	1924—September, 1927.
Archibald Tom Jefferies	1927—March, 1936.
Howard Charles Collis, A.S.A.A.	1936—November, 1940.
Thomas Cyril Gwyer Butler	1940—October, 1946.
Henry Rowntree Clark, A.C.A.	1946—date.

Chart showing the relationship between William Butler and the past and present Directorate and others of the family who have been employed by the Company, together with years of service.



CHAPTER VII

STAFF AND EMPLOYEES

THIS chapter is written with very mixed feelings. Firstly of pleasure to recall the names, faces and personalities of the grand body of people who have devoted a great part of their working life in furthering the interests of the Company. Secondly, a feeling of diffidence that in mentioning individuals it is possible other names of equal importance may be accidentally omitted.

The Writer is inspired by the words of wisdom found in the Apocrypha—

> " Let us now praise famous men and our fathers that begat us."
>
> " There be of them that have left a name behind them that their praises may be reported and some there be which have no memorial."

Yet all have played their part in building up this family business.

The happiest relations have always existed between employer and employed and in the early days this is illustrated on the testimonial presented to William Butler on his retirement. No disagreement has existed that has not been rapidly resolved to the satisfaction of all parties. The unfortunate exception was the General Strike of 1926, which time has shown was a national calamity which served no useful purpose and benefited no-one.

Head Office Staff

H. I. Jefferies, who completed 50 years' service with the Company, is reputed to be the first clerk employed by William Butler. During this half century he was in charge of the accounts books of the Company. He died in 1932 at the age of 78 and was well known outside as the organist of Frenchay Church for 28 years.

W. Lord commenced work in 1872 and acted all his life as confidential clerk to the Principals, retiring in 1919. He died at the ripe old age of 90 in 1926. He was a scholar, linguist and had expert knowledge of Anglo Saxon English. He was respected and beloved by all his colleagues and especially by his employers.

STAFF GARDEN PARTY, 1921

H. Hodge worked for the Company for 44 years, dying before retirement in 1921. His activities were devoted to the shipping side of the business.

W. Hodge. Starting in 1891 as a junior in the Office, he advanced to traveller and then representative at Birmingham Depot, retiring on pension in 1932, and passed away in 1953.

H. H. Davis was appointed Cashier in 1896 and held this position until 1924. His mental relaxation of chess of which he has been a prominent exponent, appears to have helped in his longevity for as this is written he is still enjoying moderately good health at the age of 98.

Of many other staff still in the employ of the Company should be mentioned F. G. Fear, who started in 1908, C. G. Timbrell, 1909, C. L. Marshall, 1909, E. E. Lewington, 1911, E. L. Lovell, 1914, and G. J. Drake, 1914.

Crews Hole Works

W. Rogers completed 50 years' service in 1951 in the engineering side of the business and is enjoying at present a well earned rest.

W. E. Davis commenced work in 1897 and despite the fact that he passed pensionable age some years ago, delights in still working, looking after the many pensioners of the Company by paying all of them regular visits. He has always worked at Crews Hole Works, holding many positions and has been Welfare Officer for 22 years. During his 56 years' service, which was only broken by military service in the first World War, he has never lost any time through illness or other cause, nor is it within anyone's knowledge that he has ever been late for work. A truly wonderful record.

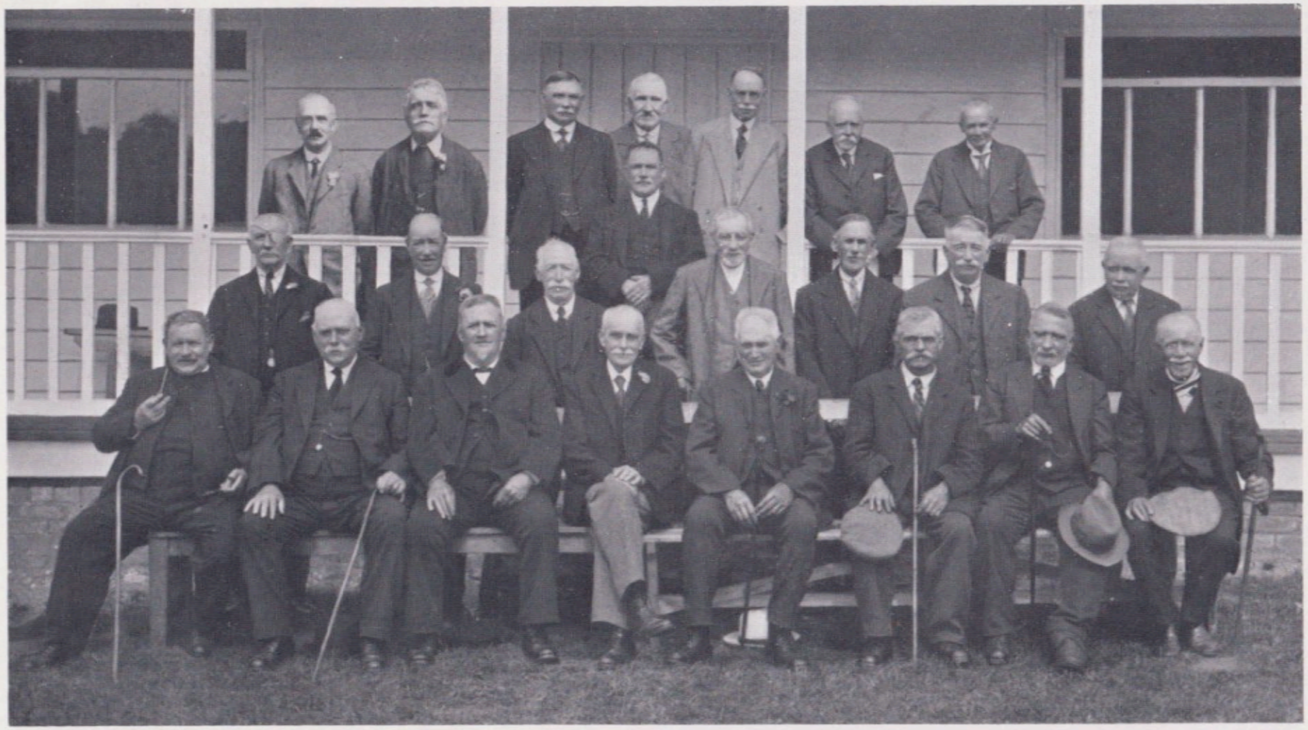
A. E. Ricketts started in a junior position in 1899 but early took a great interest in Chemistry by attending evening lectures. He became a Works' Chemist and finally managed the Gloucester Works for many years, retiring in 1945.

J. Edwards, fresh from service in Petroleum Refineries in Mexico, joined the Company as Works Manager at Crews Hole. He served 27 years with the Company and retired from the position of Technical General Manager in 1953.

The position of General Works' Foreman must have been a very healthy

PENSIONERS—1932

TOTAL LENGTH OF SERVICE 861 YEARS. AVERAGE LENGTH OF SERVICE 37 YEARS



	H. ROSSITER	G. VERNALL	G. HICKS	E. ILES	W. COOMBS	H. H. DAVIS	H. I. JEFFERIES
Service—	30 years	29 years	29 years	46 years	23 years	28 years	50 years
Age—	65 years	69 years	77 years	81 years	66 years	77 years	78 years

A. HODGE. Service—49 years. Age—72 years

	J. ROSE	S. DARK	C. MAGGS	H. MEALING	H. PILLINGER	S. DARK	G. DAVIS
Service—	41 years	47 years	36 years	46 years	17 years	35 years	21 years
Age—	69 years	72 years	71 years	77 years	71 years	68 years	79 years

	A. JONES	A. WOODEY	J. THOMAS	J. ROGERS	I. PERRYMAN	A COOKE	F. HARES	H. BESSELL
Service—	49 years	23 years	55 years	31 years	64 years	35 years	32 years	45 years
Age —	69 years	67 years	70 years	74 years	87 years	66 years	74 years	73 years

S. BYE, G. PERRYMAN, MISS CHURCHILL (FOR W. CHURCHILL), F. LEAR, W. E. DAVIES
PRESENTATION AFTER 50 YEARS' SERVICE, 1947

occupation for there were only five who held this position during the period of this story. Henry Smith was the first foreman and retired in 1872 and was succeeded by " Dan " Elbrow. He held this position until 1903, having been employed by the firm for 45 years. He was a notable character, being a local preacher, having considerable knowledge of Hebrew and Greek, and was as much a friend of William Butler and his sons, as an employee. " Joe " Rogers was foreman from 1903 to 1916, Albert Woodey until 1925, and finally " Ike " Churchill until 1953, the latter having worked for the Company for 46 years.

It is almost an impossible and certainly an invidious task, to single out any of the many employees who have served the Company so faithfully for so many years. The illustrations in this book will give some idea of these faithful servants.

In 1926 a Staff Bonus Fund was instituted by the Company which materially assisted the happy relations between the Company and its staff. An amount related

MEMBERS OF ST. JOHN'S AMBULANCE BRIGADE

to the profits of the Company was allocated to this Fund each year. It was distributed to all members of staff, on a formula based on salary, years of service and number of children.

Right from the early days, up to the first World War, it had been customary for the Company to arrange an Annual Outing in the summer to watering places conveniently served by rail. A special train was chartered to take all staff and employees from the various Works and two free tickets—one for each employee and one for his wife or sweetheart were issued. Many happy days have been spent in this way which have cemented the good relations between master and man. A few outings have taken place since, and probably the outstanding ones were trips to the Wembley Exhibition of 1925 and the one to Blackpool in 1937 to see the Illuminations.

It has been customary since 1948 for the Company to present to any employee who has done 50 years' service, an inscribed clock, together with a cheque, commemorating the event. Such an event can be seen in the illustration on page 75. If this happy form of commemoration had been instituted earlier, no doubt others would have received the recognition. The ones who have earned this award are Stephen Bye, George Perryman, William Churchill, Frank Lear, Walter Davis, Gilbert Harris, Fred Rogers and Wesley Churchill.

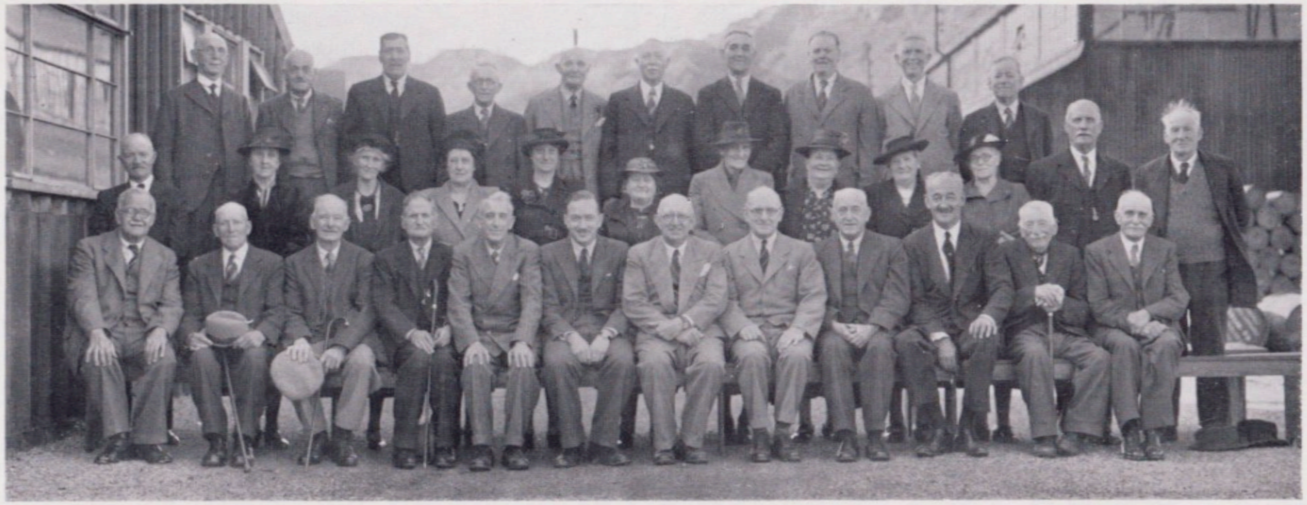
The Company have always looked after their long service employees by granting them pensions on retiring from active work. In 1934 was instituted a Life Insurance and Pension Scheme for all employees and staff. This provides life insurance payment in the event of death before retiring age and a pension for life after retirement which latter was contributory. In 1952 the scheme was considerably modified, the staff section being converted to a non-contributory scheme. These arrangements have been much appreciated as a welcome addition to national pensions and have made for comfort and security in old age.

A Sick Benefit Scheme had been in existence for the workpeople since 1872 in which the employees subscribed voluntarily a modest sum per week in order to obtain death and sick benefits. In 1933 this was converted to a Workers' Welfare Scheme in which the worker subscribed 6d. per week and the Company 3d. per week. This is a voluntary scheme but supported 100% by all the workpeople at all the Branches. The premiums were increased in 1953 which enabled the workers to get extended benefits and included Old Age Pensioners on retiring getting sickness benefits without further contributions.

For many years, great interest has been taken by the employees of the Crews Hole Works in the St. John's Ambulance Brigade. This is largely through the enthusiasm of County Staff Officer, A. R. Harding, and Divisional Superintendent W. H. Hobbs. The latter was an industrious volunteer of the Civil Defence Service in Bristol and was awarded the B.E.M. in 1942 for his outstanding services in First Aid work during the Second World War. For their work for the Brigade, both have been admitted to the Order of St. John as Serving Brothers.

PENSIONERS' GATHERING

CREWS HOLE, MONDAY, 24th JUNE, 1946



Back Row—Fred Jones, Fred Waddell, Stephen Bye, Charles White, William Churchill, Albert Dark, George Thompson, Jack Posting, James Dark, Henry Walker
(36) (28) (52) (28) (51) (45) (37) (22) (35) (22)

Middle Row—William Tozer, George Morgan, William Howe
(46) (29) (35)

Front Row—George Miles, Joseph Gill, William Lewis, George Perryman, Mr. J. Edwards, Mr. T. C. G. Butler, Dr. T. H. Butler, Mr. E. W. Butler,
(41) (19) (27) (51)

Mr. A. J. Newman, Mr. J. S. Hatfield, Stephen Dark, Joseph Rogers.
(35) (31)

There have been several teams at the Works in the Brigade who have been very helpful in the event of accidents in the neighbourhood and their training has been carried out almost entirely in their own time. The teams have won many prizes and cups competed for locally but probably their outstanding successes were being three times in the post war period in the Finals of the Dewar Shield which is a national competition open to teams throughout the whole of the British Isles.

On the formation of the Local Defence Volunteers, a section was formed from volunteers of the Staff and Employees and known as the " Butler Section " under the command of T. H. Butler and E. W. Butler. This was subsequently taken over by T. C. G. Butler and K. J. Foss and was absorbed in the Home Guard, and the activities became more local than domestic.

Sports have always been encouraged by the Company. On many occasions Clubs have been formed for Cricket, Football, Tennis and Skittles. They have never continued with any great enthusiasm for long periods as there were never at any time enough younger employees to keep the clubs alive. The most active time was when the Company had their own Sports Field at Conham where there was a pavilion and facilities for all the above games. The compulsory purchase of this land by the Warmley & Kingswood Councils for a sewerage scheme, stopped all these sports and although a new ground was available, it was so far distant from the Works that all decided not to continue the activities of the Club.

* * *

CHAPTER VIII

PIONEERING AND RESEARCH

IN getting together the data for this history, it appears throughout the years that the proprietors have taken advantage of scientific inventions and been early in the field to exploit new ideas. Thus the generations of the management have followed the grand example of inventive genius and pioneering set by I. K. Brunel. It is well therefore to set out a few of the outstanding developments of the Company during the period covered by this story.

Early Tar Distillery

Although no credit can be given to William Butler, it is certain that the Crews Hole Tar Distillery was one of the earliest built in this country at the instigation of I. K. Brunel.

Telephone

It was in the 1870's that the telephone was invented by Edison and Bell in the U.S.A. It was not until October, 1876, that the first reciprocal conversation by telephone was made by these inventors. Wm. Butler & Co. early saw the advantages of a vocal communication between their main Works and Head Office at Bristol and the first installation of reciprocal telephones was carried out as seen by the following extract from the " *Western Daily Press* " dated Tuesday, 26th August, 1879.—

> " THE TELEPHONE—The utility of the telephone has just received a practical illustration by what has been effected at the business establishments of Messrs. W. Butler and Sons, tar and resin distillers of this City. The Messrs. Butler have two places of business—one in Silverthorne Lane, St. Philips and the other Crews Hole, about two miles distant, and between these two places communication has been established by means of the telephone. The instrument used is Bell's patent, all the apparatus having been fixed by Messrs. Butlers, who have introduced one or two important features in connection with the working, which at once suggest them-

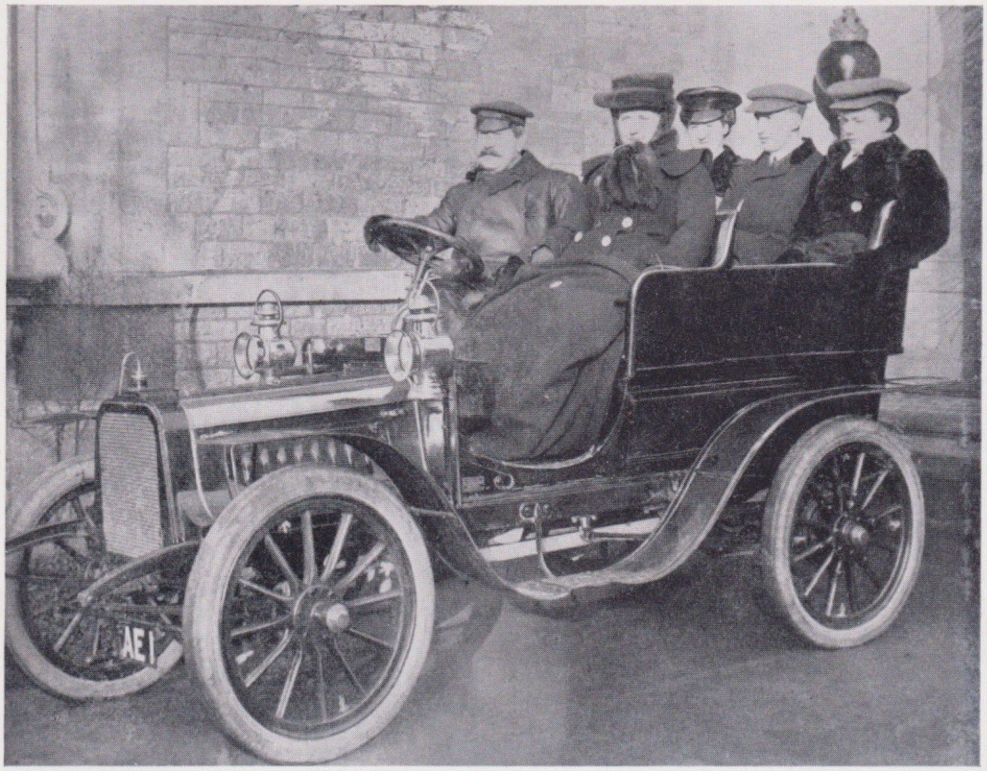
> selves as improvements of considerable importance. There is an electric bell at each end for calling attention and by an ingenious contrivance, a person at the St. Philips side can ring the bell at Crews Hole without sounding the one affixed on the side at which he is engaged, thereby obviating the confusion which is sometimes caused when the bells are rung at both ends of the wire. The work is a marvel of simplicity and the whole thing has been constructed at an expense so moderate that one shilling per week will cover the interest on the amount of the outlay. The instrument answers its purpose admirably; conversation can be carried on between persons at both ends with the greatest possible ease, which must be a great help in the transaction of business. Formerly, when it was necessary to transmit orders from St. Philips to Crews Hole, which required immediate attention, messengers had to be employed for the purpose; whereas now, the orders can be immediately transmitted by means of the telephone, not only effecting a considerable saving of time, but also expense; and, considering that the cost of the whole thing was under £100 it is not very difficult to see that the instrument will soon pay its own cost. This is the greatest distance to which the telephone has been applied in this locality, but seeing the success which has attended the venture, other business men may soon find it to their advantage to follow the example which the Messrs. Butler have shown them."

Eight years later the Company was connected with the Central Exchange at Bristol which had a total of only 400 subscribers.

Continuous Distillation

Reference has already been made to the installation of a continuous still at Crews Hole in 1898. Up to this time all tar distillation had been carried out in pot stills worked on the intermittent batch principle. The Company immediately saw the great advantage of both continuous distillation and the heating of the tar in coils or tubes rather than en masse in a pot still. They took advantage of the Lennard Patent and installed the first of several continuous tube stills in the country, for at the same time the South Metropolitan Gas Company built a similar installation. The experiment ultimately became a great success after many adaptations to the original patent.

CONTROL LABORATORY

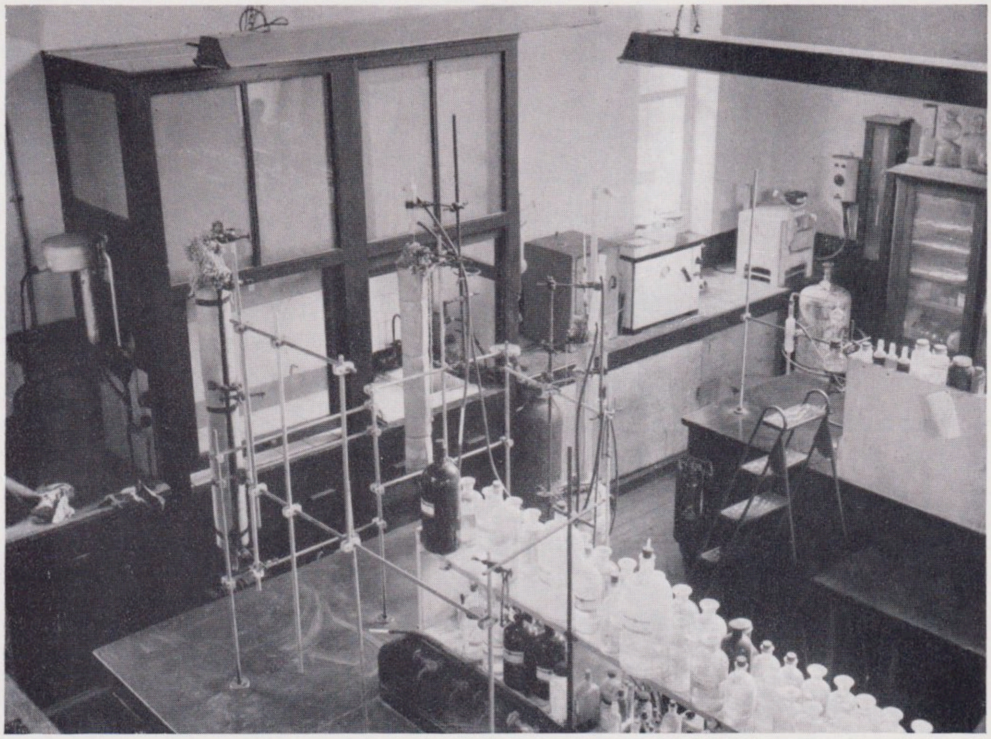


FIRST REGISTERED MOTOR CAR IN BRISTOL

(MR. AND MRS. THOMAS BUTLER, MISS BUTLER AND TWO FRIENDS)

Motoring

At the advent of motoring at the end of the last century, both William Henry Butler and Thomas Butler purchased motor cars which were some of the first in Bristol. It is interesting to note that on the introduction of the Motor Act which came in force in 1904, Thomas Butler obtained the first Motor Licence and had the first registered car in Bristol numbered AE 1. This was a 12 H.P. 4-cylinder Clement purchased at the Paris Motor Show and through its number soon became the best known car in Bristol, not only to the public but to the Police—a distinction not too desirable in view of the then restricted speed limit.



RESEARCH LABORATORY

Motor Lighter

Reference has also been made in the shipping section to the various Motor Lighters owned and run by the Company. It should be noted, however, that the installing of the Kromhout Dutch engine in 1907 in the "*Darby*" converted a towing barge into a Motor Lighter and this was the first self-propelled barge in the City Dock fitted with an internal combustion engine.

Co-Operative Tar Distilling

The development of co-operative tar distilling, as distinct from the purchase and sale of crude tar at a fixed price, was a very great advance in the economic development of tar distillation, both in the interests of the producer and distiller. The initiation of this method of trading must go to Mr. Frank Kilpatrick who started a co-operative group in the South of England. Yet this Company was the second operator of this very desirable method of dealing with a very difficult problem. The method has become almost universal. At least the Company can claim that within the last few years referred to in this history, it has consolidated this position with a nationalized industry and that it is one of the first, if not the first, to have attained this desirable end.

Winter Wash

In 1925 a very important discovery was made that was of vital interest to fruit growers in this country. It was found that many of the insects that attacked fruit trees in the period of blooming, at the period of setting and the period of development of the fruit, laid their eggs in the bark of the trees or in the soil in the previous Autumn. It was found that if the trees were sprayed with a tar oil wash, known as Winter Wash, in the dormant Winter period, the eggs could be destroyed and damage to the fruit in the subsequent season avoided. Many manufacturers started to produce this article, in some cases with very disastrous results, causing serious damage to the dormant buds and the trees.

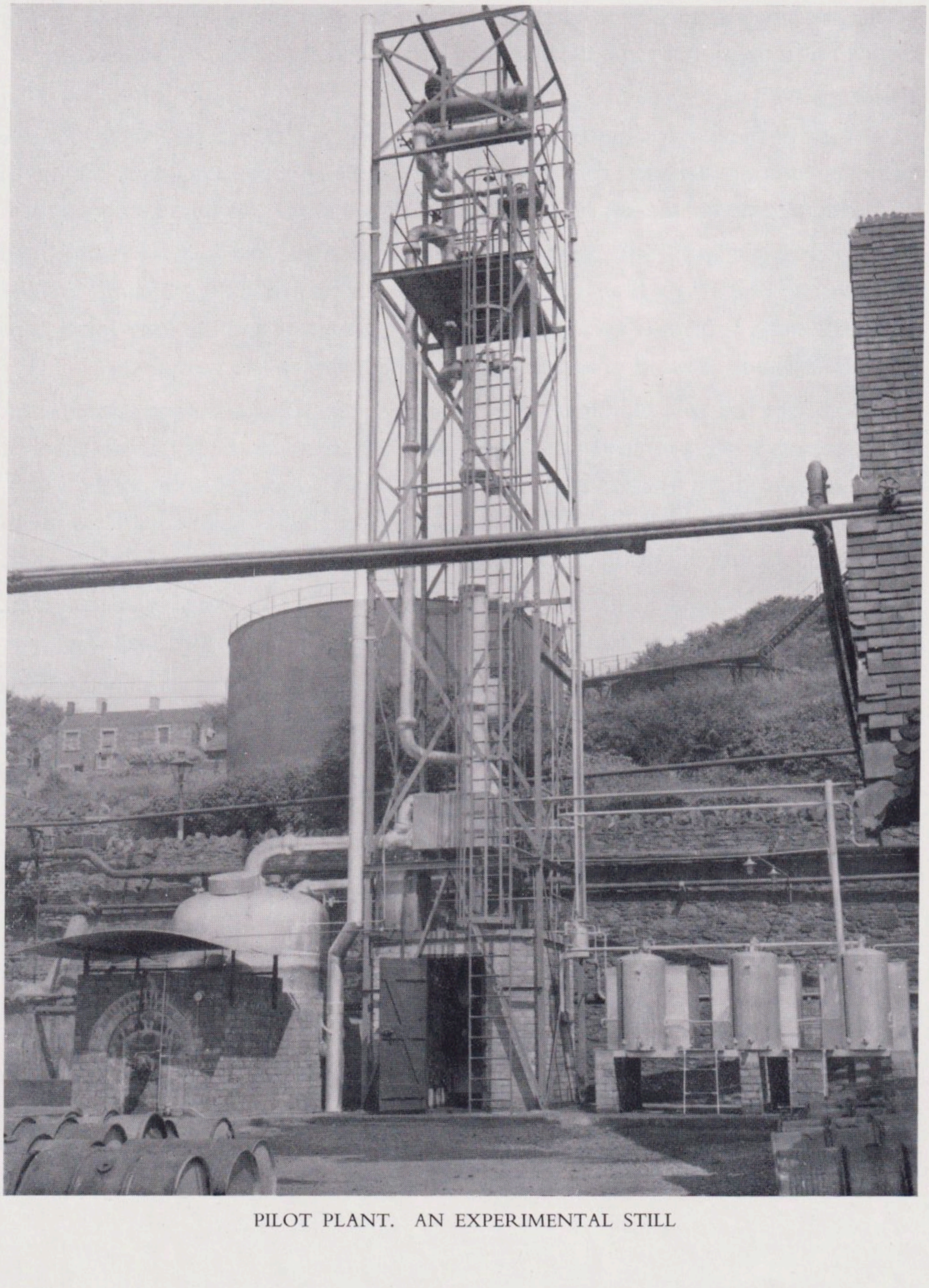
This Company instituted a research with the Long Ashton Station of Bristol University, from which they ascertained the exact specification of tar oil that would, on the one hand, be the most efficient and on the other hand, less damaging. This specification of oil was published by the University and is the one which is in universal use to this day.

Iron Roads

Reference has already been made to this in a previous chapter. It was the heavy demand for iron and steel in many directions that made this project unsuccessful. It is quite possible that the time may come when a slump in the Steel Industry may make possible the manufacture of a more permanent highway so very necessary to meet the increasing demand for wider and better roads in this country.

Solvent Extraction of Naphthalene

A patent that has been discovered in the Research Department of the Company is " The Purification of Crystallisable Aromatic Compounds in Tar Distillates " No. 686,166 in 1953. This master patent, now covered in most countries of the



PILOT PLANT. AN EXPERIMENTAL STILL

world, is being extensively utilised for the preparation of pure Naphthalene which is such an important raw material for the plastic and fine chemical industries.

Research

Much of the developments recorded in this story would not have been possible without devoting attention to research. This has been done extensively and in an increasing degree for the last half of the Company's history or during this century.

Laboratories and engineering workshops were originally used for control and maintenance and research was carried out when opportunity occurred. In later years it became apparent that separate buildings and staff were the only solution to obtain the single minded concentration on discovery and development.

To attain this, the Company has for many years allocated considerable sums of money each year for this purpose. The Research Laboratory is stationed at Crews Hole, entirely separate from the Control Laboratories and with different staff. Attached to it is the Pilot Plant house and workshop where the discoveries made in the laboratory are tried out, before transferring them to general works' practice.

Space does not permit the enumeration of the many discoveries and ideas that have emanated from this department, other than a few mentioned above.

Research in chemical industry is its life blood, and besides these local efforts the Company supports financially three other national research organisations.

CHAPTER IX

FRANCIS F. FOX & CO. LTD.

IN 1937 Wm. Butler & Co. (Bristol) Ltd. acquired the business and premises of Francis F. Fox & Co. Ltd., Oil and Chemical Merchants. It was purchased with the object of assisting the sales and distribution of the many products manufactured by the parent Company. A new company was registered under the title of the original name—Francis F. Fox & Co. Ltd. with a share capital of £30,000 wholly owned by the parent Company. The first directors were Dr. T. H. Butler—Chairman, Mr. E. W. Butler, Mr. A. T. Jefferies, and Mr. H. C. Collis—Secretary. Although the parent Company have only been associated with Francis F. Fox & Co. Ltd. for this short period, yet it would be inappropriate if this story did not contain reference to this very old established firm in the City of Bristol.

There are few records available of its early history and much of it has been obtained from Bristol historical books.

It appears that as long ago as 1794 a John Fry had a Druggist shop in Castle Street. This business changed hands on a good many occasions between this date and the first half of the last century. The premises were moved to various points within the City but always in the same neighbourhood. From the period 1806 and the next 50 years, Richard Harris Manning appears to be the leading personality and in 1841 the firm ceased to be druggists and became Oil and Colourmen. It was not until 1855, when the original Manning retired, that a partnership was formed between Richard Manning Hayman, Abraham Baker and Francis Frederick Fox. This is the first time that a Fox appears in the business. Francis Fox was assisted by his father-in-law to the extent of £12,000 in order to get this partnership.

The firm carried on the business of Oil and Colourmen and Drysalterers and undertook the importation of many products in their line from Continental countries. Owing to the death of Abraham Baker in 1861 and the retirement of R. M. Hayman, the business was taken over entirely by the energetic partner, Francis Frederick Fox, who traded under his own name as Oil Merchants.

In 1864, the firm purchased larger premises in Little George Street, St. Judes, Bristol, which premises are still being used to this day. The business progressed so rapidly, still on the importation and merchanting of oils and drysaltery from the Continent and the United States, that larger accommodation was necessary and another depot was opened at Netham where water facility was available for handling some of the many products that came by ship into the Port of Bristol.

Petroleum Trade

Up to the middle of the last century, the commonest sources of artificial light other than coal gas, were whale oil and candles made of tallow. It was in 1848 that Dr. Young of Manchester set up a distillery for refining petroleum, which was obtained from a natural spring near Alfreton, in the County of Derbyshire. He produced lamp oil, lubricating oil and paraffin wax from which candles were manufactured. The supply of raw material soon became exhausted and Dr. Young turned his attention to the production of petroleum oils by the dry distillation of shale. Francis F. Fox early took advantage of the development and handled large quantities of Young's oil to the great advantage of the general public and it is interesting to note that advertisements claimed that a gallon of Young's oil would give the light of 40 lbs. of tallow candles.

The production of crude petroleum oil was also being developed in the U.S.A. and competition with the domestic production from shale oil became very keen and Francis F. Fox was one of the first to import refined petroleum from New York and Philadelphia at prices that were half those of shale oil. He put his own brands of refined oil on the market, such as " Lux Bristoliensis," " Astral," " White Rose," " Alexandra " and " White Horse."

During the year 1880, as a result of his activities, Bristol was ranked as the third port in the United Kingdom for petroleum imports and out of the 84,000 barrels which were landed, 36,000 were for Francis F. Fox.

Five years later, another competitor appeared in the British market in the form of Russian Oil and Bristol imported 14,000 barrels in that year which was an equivalent quantity to that brought into London. It was in 1889 that the Bristol petroleum merchants combined and formed a Petroleum Storage Association which began importing oil in bulk and the first storage tank for oil was erected at Avonmouth and the first tankers came to Bristol—four of 700,000 gls. each from Russia and three with 1,000,000 gls. each from U.S.A.

Serious competition soon arose to this Association from the Anglo American Oil Company by importing oil from U.S.A. and selling direct to consumers. As a result of this competition, the wealthy American Companies were able to instal depots at tactical geographical points and gave a service to the public which was outside the financial possibilities of the Bristol merchants.

During this period of activity in the petroleum industry, there appears ample record of the firm carrying on their business in drysaltery, colours, oil, turpentine, rosin, Russian and Scandinavian wood tars, and they must have gone through a very prosperous period.

It was in 1881 that Richard Anstice and William Poole, the two sons of Francis Frederick Fox came into the business and six or seven years later a partnership was formed between them, their father, and Edward Feltham and the firm still traded under the style of Francis F. Fox & Co. It was not until 1920 that Edward Feltham retired, having been with the firm 57 years. Richard Fox remained in the business until his death in 1933, whilst William Fox remained until the business was acquired by Wm. Butler & Co. (Bristol) Ltd. and he died in 1943. Another person who contributed much to the advancement of the business was J. McPherson, who for many years was Birmingham representative of the firm operating from a well equipped Depot at Worcester Wharf. He became a partner in 1921 and Managing Director three years later, when the Company was incorporated as a Private Limited Company with a capital of £50,000.

On the death of Richard Fox, Captain Brown, Captain Britten and Commander Gibson Smith joined the Board, the former being a great nephew of Francis Fox through his mother, one of the daughters of Dr. Fox.

During the first part of this century, the business appeared not to have had such a prosperous time as when they were handling large quantities of petroleum and they began again to enter the wholesale drug business. Since the acquisition by the parent Company, similar activities have been carried on by Francis F. Fox & Co. Ltd. and it has been used also for the marketing in small packages of the many products manufactured at the Crews Hole Works of Wm. Butler & Co. (Bristol) Ltd.

This record would not be complete without special reference to the founder—Francis Frederick Fox, who died on 30th May, 1915, at the age of 81. He was the second son of Dr. Francis Fox and was educated at Bath and Shrewsbury.

In his early 20's, Fox became Warden of the Antient Society of St. Stephen's Ringers and was among the first to take a Commission as Lieutenant in the Bristol Rifle Corps.

He was a member of the City Council for many years and was elected an Alderman in 1865. He was Master of the Society of Merchant Venturers in 1878, was a Magistrate, and a Trustee of the Municipal Charities. In 1869 he was President of the Grateful Society and was President of the Parent Society in 1879. He was Sheriff of Bristol in 1880. He was an ardent book collector, particularly of books of local interest, and he had a very fine library at his residence at Yate.

He married the daughter of Richard Poole King and had eight children, four sons and four daughters.

In "*Bristol Worthies*," Mr. Fox is described as a "Handsome man, above medium height, bald, full beard; amiable, unaffected and universally popular" and as giving an immense amount of time to public service.

In his obituary in the local Press it was said that "There was no more distinguished trait of his character than his urbanity. He could never be other than courteous and a more popular gentleman never occupied a civic position in the City of Bristol."

* * *

ACKNOWLEDGMENTS

IT is with the greatest pleasure that I complete my enjoyable task by thanking and paying tribute to those who have assisted me.

Archie Powell, or A.G.P., as he describes himself in the local Press, has given me much advice and helped me considerably, especially in writing the sections that appear under his name. Without the careful and detailed information prepared for me by E. Lovell, I should never have found the data required. He is a valued member of the Staff and delights in delving into the past, particularly in relation to the Butler family and the Company he serves. My brother and other Directors have been most helpful in reading and correcting some of my proofs and providing some of the photographs for reproduction. My son, Adrian H. G. Butler, has been indefatigable in his endeavours to use the material with which I have provided him to produce and print a book worthy of the name he bears. To all these, I offer my heartfelt thanks.

T. HOWARD BUTLER.